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ARTICLE I.—*Staphyloraphy and Uranoplasty.* By JNO. E. OWENS, M.D. Read before the Chicago Society of Physicians and Surgeons, August 26th, 1873.

We have no record of Staphyloraphy, much less of Uranoplasty, amongst the ancients. The honor of the first successful case of the former is generally conceded to Roux, of Paris, but the operation dates somewhat further back than its performance by this surgeon. Robert, in his "Memoirs on Various Medical Subjects," published in 1764, says: "A child had the palate cleft from the velum to the incisor teeth. Lemonnier, a very skillful dentist, endeavored and succeeded in reuniting the two borders of the cleft, first inserted several points of suture in order to keep them approximated, and afterwards abraded them with a cutting instrument. An inflammation supervened, which terminated in suppuration, and was followed by the reunion of the two lips of the artificial wound. The child was perfectly cured." After making every allowance for the inaccuracy of the times, one can

scarcely doubt that Lemonnier's patient had a cleft palate, and that Lemonnier himself performed a staphyloraphy, and perhaps, also, uranoplasty. Forty-nine years later (1813), M. Colombe made various trials of the operation upon the dead subject, and two years afterwards, a patient upon whom he wished to operate, refused. It seems, then, that the operation is entirely French. Graefe, in 1817, published the details of its performance (staphyloraphy), dating his operation at the end of 1816. His effort was unsuccessful, and barely escaped notice. In 1819, Stephenson, a young physician, presented to Roux the first opportunity for the performance of staphyloraphy, which proved successful, and Stephenson himself published his cure in a thesis in 1821, in London. One year later, Mr. Alcock, probably enlightened by Stephenson's paper, was as successful as his French cotemporary. It was at this time that a controversy arose as to the right of Graefe or Roux to priority. The latter, it seems, was not aware of what had been done by his neighbor across the Rhine. We have strong reason, however, to believe, as already mentioned, that its performance antedates both that of Roux and Graefe. Shortly after Roux's operation, Dr. Jno. C. Warren, of Boston, not being aware of what had been done in Europe, performed the same, and invented new instruments for it. Under favorable circumstances, staphyloraphy is neither very difficult nor very painful, but it is a long and delicate operation, and requires much endurance on the part of the patient and surgeon. The former must be sensible of the importance of the operation, and not only willing, but capable of co-operating with the surgeon, otherwise the task becomes one of the most difficult in surgery—often, indeed, an impossibility. To attempt a detailed description of the operation as performed by different surgeons, or the instruments used by them, would tax the patience of this audience too severely, and perhaps unnecessarily lengthen this paper. Suffice it to say, that the operation consists of three steps, viz.: paring the edges of the cleft; introducing the sutures; approximating the flaps and knotting the threads.

In 1843, staphyloraphy was probably seventy-nine years old. It had been performed many times in this country, and in France, Germany, and England, with many successes and many failures. In this year (1843), Dr. J. Mason Warren, of Boston, published in

the *New England Quarterly Journal of Medicine and Surgery* an account of an important modification of the operation of staphyloraphy. This modification by Dr. Warren renewed the interest of the profession, and divulged the secret of many failures. Here are Dr. Warren's own words: "The improvement to which I alluded, in the operation upon the soft palate, consisted in the relaxation of the tissues of the fissured velum, by means of incisions, made with strong curved scissors, so as to divide the attachments of the soft palate to the tonsils, and to the posterior pillar, or, in other words, dividing the posterior pillar of the palate just where it begins to spread out into the velum. The effect of this incision is at once seen in the almost complete relaxation of the parts." Again, the same author says: "In subsequent operations, however, I found that there existed, in some cases, an additional obstacle to the approximation of the flaps, which could be overcome as easily, and in the same manner as the former. This obstacle consists of a band of firm tissue, extending above and behind the soft palate, and standing in bold relief when that organ is put on the stretch by drawing upon it with the forceps. This resisting mass, like the other, I have always divided by an additional stroke or two with the scissors, whenever the incision of the posterior pillar and adjacent mucous membrane has seemed insufficient properly to relax the palate."

One year later, 1844, Mr. Fergusson, now Sir Wm. Fergusson, after the dissection of a specimen of cleft palate, adopted a method of relief to the tension of the flaps, very similar to that of Warren's, last described. The muscles divided by both Warren and Fergusson are the levator palati, the palato-pharyngeus, and sometimes the palato-glossus on each side. The levator palati muscle is best reached by Pollock's method, in which a narrow, sharp-pointed knife is passed upwards and backwards, and somewhat inwards, through the palate, close to, a little in front and to the main side of the hamular process of the sphenoid bone. (Location of process.) By this relief of tension staphyloraphy seems to have been perfected in its essential features, and the percentage of failures greatly reduced.

Now, gentlemen, all that has been said as yet in this paper refers to the operation as applied to adults, and without the aid

of anæsthetics. In nearly all of our surgical treatises we are directed to wait till the period of puberty, at least, before attempting the cure of such malformations as those under discussion, the patient not being capable before that time of rendering to the surgeon the required assistance. Of late, however, it has been shown conclusively that the operation can be successfully performed on very young children, infants indeed, and that, too, with the aid of chloroform. Mr. Thos. Smith, of St. Bartholomew's Hospital, was amongst the first to introduce chloroform in operations on the palate in children. The same surgeon has further facilitated the various steps of the operation by the application of a gag for keeping the jaws apart during the operation. His paper was dated Jan. 14, 1868. From the "Surgical Treatment of Children's Diseases, by Hoimes," 1869, I extract this note, which shows that Mr. Smith was not the first to use chloroform in this operation. In the *Dublin Quarterly Jounal* for Nov. 1, 1867, the following sentence occurs: "Mr. Collis, of the Meath Hospital, gives it (chloroform) habitually, and has been able to operate with success on very young children." "Mr. Durham, also, had operated four times under chloroform before the date of Mr. Smith's paper." "In one case aged (8½ yrs.) complete success was obtained in two operations." "The other two cases did not succeed." A successful case at the age of four months, operated on by Mr. F. Buszard, of Northampton, Dec. 15, 1867, will be found reported in the *Brit. Med. Jour.*, April 11, 1868.

The following table of cases gleaned from the last mentioned work, exhibits, so far as they go, the results of these operations, probably on the soft palate, under the influence of chloroform. I have added my own (on the hard palate) under the influence of æther:

No.	Age.	Result.	Surgeon.	Degree.	No. opera's.	Remarks.
1	6 m.	Failure.	Billroth.	0	0	
1	0	"	"	"	"	
1	28 wks.	Successful.	"	Complete.	3	Langenbeck's method.
1	0	Failure.	"	0	0	Some union.
1	0	"	"	0	0	
1	Infancy.	"	Langenbeck.	0	0	
1	"	"	"	0	0	
1	2 yrs.	"	Smith.	0	2	1 failed from scarlatina.
1	2 yrs 11 m.	Doubtful.	"	0	2	1 union had taken place, but cough set in and a good deal gave way.
1	3 yrs. 2 m.	Probably successful.	"	"	2	Last seen a week after operation—had every appearance of success.
1	5 yrs.	Successful.	"	0	0	
1	6 yrs.	"	"	0	0	
1	9 yrs.	"	"	0	0	
1	10 yrs.	"	"	0	0	
1	13 yrs.	"	"	0	0	
1	13 yrs.		"	0	0	Operation had only just been performed.
1	8½ yrs.	Successful.	Durham.	0	2	
1	Childhood.	Failure.	"	0	0	
1	"	"	"	0	0	
1	4 m.	Successful.	Buszard.	0	0	
1	11	"	Owens.	Complete.	1	Operation upon hard palate only. Completed with æther.

Of the twenty-one cases tabulated, nine were successful, one was doubtful, one probably successful, having been last seen a week after the operation with every prospect of success; in one the operation had just been performed, and nine were failures. Mr. Smith, with the aid of his gag and chloroform, nine cases. Five of these were successful, one doubtful (scarlatina), one probably successful; in one the operation had just been performed, and one operation failed. The ages ranged from four months to thirteen years. Although Mr. Smith cannot claim precedence in the performance of this operation on young children, with the aid of chloroform, it is certain that his name is well known in connection with it, and that he has done more than any other surgeon to bring it to the notice of the profession. He has likewise obtained the most gratifying results. Indeed, gentlemen, the operation of staphyloraphy has been now so perfected at home and abroad, that there is little to look for, perhaps, beyond improvement in operative details. We may the better appreciate this, when we reflect upon the fact that the earlier attempts at abrasion of the cleft were made with the mineral acids, caustic potash, tr. canthæ, lapis infernalis, and the hot iron.

We will now leave the subject of staphyloraphy, or the operation for the closure of clefts in the soft palate, in order to consider

uranoplasty, or that operation which has for its object the closure of clefts in the hard palate or roof of the mouth.

In former times, nearly all fissures extending into the hard palate were rejected as unfit for operation. We should not overlook the fact, already mentioned, that the child upon whom Lemonnier operated, as reported by Robert, in 1764, was *perfectly cured*, and that the cleft extended from the velum to the incisor teeth. This is probably not only the earliest record of staphyloraphy, but also the earliest mention of uranoplasty. However, in 1843, when Dr. J. Mason Warren published in the *New England Quarterly Journal of Medicine and Surgery*, the account of his important modification of the operation of staphyloraphy, he included an account of a new operation for the closure of fissures in the hard palate. The right of priority is usually, but it seems erroneously, conceded to Dr. J. Mason Warren. There seems to be some diversity of opinion as to what really is Dr. Warren's operation. In the first volume of Velpeau's Operative Surgery, we find Warren's operation mentioned in the following terms: The soft palate having been prepared for staphyloraphy by the usual abrasion of its edges, and the introduction of the necessary points of suture, the mucous membrane covering the roof of the mouth was carefully raised on each side of the fissure in the hard palate, and when thus detached, they were brought across the fissure and united, like the soft palate, by the interrupted sutures, the flaps formed by the mucous membrane of the mouth being continuous with the denuded edges of the soft palate. This difficult and delicate operation was completely successful, and is by no means diminished in value from having been first devised and successfully performed, many years before, by a German surgeon, named Krimer or Kreimer. Now let us glance at the process of Krimer: This surgeon made incisions at some distance outside a cleft which remained in the hard palate after a staphyloraphy. He was enabled to dissect from the sides towards the cleft two flaps, which he reversed upon themselves, and then united by stitches. The patient made a perfect recovery.

It is plain that Kreimer and Warren performed uranoplasty by different processes, but the right of priority belongs to Kreimer. Gross seems to imply, in the last edition of his System of Surgery, that Warren performed the operation by dissecting the flaps

from the alveolar border towards the cleft on each side, whereas he dissected in the opposite direction. In order to get the truth of the matter we naturally consult Warren himself. "The operation," he says, "upon the hard palate, consisted in dissecting up with a long, double-edged knife, curved on its flat side, the membranes covering the hard palate, pursuing the dissection quite back to the root of the alveolar processes." Dr. Warren distinctly states in the same work, "Surgical Observations," that the flaps were made to cover the cleft par glissement. Such are the peculiarities of this infirmity, that it is not by any single operative process that the most gratifying results are obtained. Each case must be studied *per se*, its complications well considered, and the operation modified accordingly. Dr. Wm. R. Whitehead, of N. Y., in 1869, read before the American Medical Association, "A Report on the Best Methods of Treatment for Different Forms of Cleft Palate." This paper contains a description of a very efficient instrument known as Whitehead's gag, the principle of action being the same as that of Smith's. The former is less expensive. Dr. Whitehead etherizes his patients. The use of the gag, the simplification of other instruments, and the use of anæsthetics, have greatly facilitated the performance of staphyloraphy and uranoplasty, made them practicable in the case of children, and have given the operative treatment of cleft palate a high rank in surgery. In all such cases, the infant is unable to suck the nipple, and hence, during the first months, it is a struggle for life. Such infants should be hand-fed, in the upright position. Uranoplasty should not be inflicted upon very young infants, for several reasons, viz.: Infants bear hemorrhage badly, convulsions are likely to supervene; the traumatic inflammation interferes with the feeding of the child. Children do not begin to pronounce many words before the age of two years. The fissure in the soft palate should be first closed, and the next step should be the closure of the hare-lip, should that defect exist, or the reverse. Should these operations be successful, we have every reason to look for a diminution in the cleft of the hard palate in the course of several months. Now, gentlemen, it is the opinion of many of our most eminent surgeons, that uranoplasty in adults, and staphyloraphy too, for that matter, are productive of no very decided improvement in articulation, but if the cleft be closed about the time that articulation commences, or

soon after, our patients would doubtless receive a benefit which can scarcely be exaggerated. This was once an operation nearly hopeless in many cases. To-day it can be looked upon as certain to effect the closure of the most extensive cleft, and I hope I shall not be considered too enthusiastic in saying that it is likewise almost sure to improve a most unfortunate articulation. In August, 1867, a little girl aged eight years came under my care, and was admitted to St. Luke's Hospital. She had a cleft extending through the velum, the hard palate, the alveolar process between the incisor teeth, and through the lip. Soon after admission the usual operation for hare-lip was performed, with good result. One of the incisor teeth, in consequence of the deformity, presented one of its sides towards the lip, and so constantly impinged against the line of incision, that ulcerations supervened. Dr. Allport disposed of this inconvenience by turning the tooth in its socket, in order to place the former in normal relation to the lip.

In February, 1871, when the child was nearly twelve years old, and four years after the operation on the lip, I was induced to attempt the closure in the cleft in the hard palate by the following method: An incision, commencing at the posterior margin of the hard palate, was carried forward, close to the alveolar processes, and terminated close to the anterior extremity of the cleft behind the incisor teeth. A second incision was made transversely, connecting the posterior extremity of the cleft with the point of commencement of the incision already described. The flap thus mapped out was dissected up, as close to the bone as possible, from the alveolar processes towards the cleft. A similar flap having been made in the opposite side of the cleft, the two hung vertically, as two curtains, one from each margin of the cleft. A thread of surgeon's silk was then armed at each end with Sim's needle. The flaps hanging as just described, one needle was passed through the posterior end of the flap from without inward, drawn forward as far as was deemed necessary, and made to transfix the flap near its anterior end from within outwards. The other end of the thread was carried in a similar manner through the opposite flap. The flaps were then rolled or crowded up into the fissure, with their raw surfaces in apposition, and the sutures tightened and knotted. By this method the fissure in the hard palate was closed, with the exception of an

unimportant orifice just behind the incisor teeth. This was done in the presence of Prof. Gunn and Dr. Allport, and I should not omit to mention that it was the second attempt to close this fissure. The first one I was obliged to abandon at a very early stage, for want of the co-operation of the patient. The second operation was pursued as far as possible without an anæsthetic, and when the patient ceased to co-operate, æther was administered, under the influence of which the operation was completed. The jaws were kept asunder by means of corks. Hemorrhage from the posterior palatine artery continuing after the operation had been completed, was arrested by digital compression. A solution of chlorate of potash was employed, as a mouth wash during the healing process. The advantages claimed for this method of closing wide fissures in the hard palate are the following:

1. There is no tension of the flaps.
2. Two large raw surfaces are placed in contact instead of two raw edges, thereby increasing the chances of success.
3. The dissection from without inward is less difficult than a dissection in an opposite direction.
4. The difficulty of introducing and knotting the suture is reduced to a minimum.
5. Fissures of greater width can be closed by this than by any other method hitherto attempted.

Finally, from a consideration of this subject we have deduced the following conclusions:

1. That the operation for cleft of the hard and soft palate, unless for the purpose of facilitating the nourishment of the child, should not be attempted before the age of two years.
2. That we should not attempt the closure of the cleft in the hard and soft palate at one operation.
3. That the use of an anæsthetic, or the full co-operation of the patient, is necessary to the success of the operation.
4. That the operations in question upon young children, with the aid of an anæsthetic and gag, can be successfully performed, and that we have reason to look for a marked improvement in articulation.
5. That staphyloraphy was performed as early as 1764 by

Lemonnier, and perhaps, also, uranoplasty—48 years before Graefe and 55 years before Roux of Paris performed the former.

6. That both Lemonnier and Krimer performed uranoplasty before it was undertaken by Dr. Jno. Mason Warren.

7. That Dr. Jno. Mason Warren, in 1843, devised the operation for the relaxation of the flaps in staphyloraphy, and that priority belongs to him and not to Fergusson.

ARTICLE II.—*Annual Report of the Section on Obstetrics and Diseases of Women and Children of the Chicago Society of Physicians and Surgeons. Department of Gynæcology.* Read before the Society December 8, 1873, by A. REEVES JACKSON, M.D., Chairman of the Section.

In preparing the report upon gynæcology, which I have the honor to submit to the Society, I have been governed by one principal object. This was, to bring together the most recent expression of the opinions held by prominent gynæcologists, in different parts of the world, upon various important subjects connected with this department of practical medicine. I hoped, in this way, to present the subject in such a light as would enable the Society to appreciate the progress and present status of gynæcological doctrine and practice.

The field from which my material has been culled, consists of such of the various medical periodicals published during the current year as I have been able to consult. The report, therefore, is simply a compilation. In no case have I ventured to intrude my own opinions upon the subjects discussed; preferring to state facts and views as given by others, and permitting the members of the Society to form their own conclusions.

I may premise, however, that in gynæcology there is no more uniformity of belief, as regards questions of pathology or treatment, than is found in other branches of medical practice.

In many instances the diversity of opinion amounts to complete opposition; and, while not attaining this extent in others, it is yet so great as to make them irreconcilable. One set of practitioners, for example, advocate the use of mechanical appliances as the

chief and sufficient means for the treatment of uterine displacements; others decry their use as unnecessary and hurtful, and condemn them *in toto.* One set, again, believing that all, or nearly all, cases of painful menstruation depend upon mechanical obstruction to the flow, tell us that the uterine cavity must be dilated; and they differ as to whether we will accomplish this end best by bougie, sponge or sea-tangle. Others, who agree with these last as to the pathological condition present, differ from them in advising that the uterine canal be not stretched at all, but cut; and then they, too, differ among themselves as to where the cutting shall be done—whether at the internal or external os uteri —and whether it shall be done with one blade or two, bilaterally or antero-posteriorly.

And so, were it profitable and not wearisome, I might go on and show that upon almost every point there is sufficient variance of opinion to prove that gynæcology is a human science; and being human, imperfect; and being imperfect, susceptible of improvement.

TREATMENT OF UTERINE CANCER BY ERGOT AND ESCHAROTICS.

Dr. Alexander Milne, in a paper read before the Obstetrical Society of Edinburgh, and an abstract of which was published in the *Obstetrical Journal of Great Britain and Ireland*, for May, 1873, advocates the use of caustics, on the ground that, in addition to their corrosive properties, they possess also an alterative and eclectic influence; that they not only sever the morbid part, but promote a healthy cicatrix behind; and furthermore, that they penetrate and search out and destroy those deeper morbid cells which are removed some distance from the parent tumor, and which insure its recurrence.

He prefers to begin with the dried sulphate of zinc, applied to the cervix pretty freely through the speculum, the vagina being immediately thereafter plugged with cotton wool, tipped at the uterine end with a little olive oil. This is to be applied until a slough comes away, after which the cervix is to be injected with the nitrate of copper. This last is done in order to attack any morbid cells lying beyond the sore from which the slough has separated. He regards the nitrate of copper as being the best adapted to elect, attack and destroy these lurking microscopic

cells, which, if allowed to remain, are a sure guarantee of a fresh growth.

In reference to the influence of ergot, given internally, in cancer, Dr. Milne believes that the drug, in addition to its power as a hemostatic, for which it has usually been administered, has also another effect—it leads to the atrophy of the uterus, an observation which he claims to have been the first to make. It acts beneficially by diminishing the afflux of blood to the uterus, thereby combatting uterine congestion—a condition present in malignant disease—and also by its no less important property of inducing uterine atrophy. By the combined use of the escharotics and ergot he has succeeded in curing two cases of cauliflower excrescence, and in three cases of the medullary form of the disease he had at least retarded its progress. In one of these last he thought a permanent cure would be effected, while as regarded the others, there had been diminution of pain, of bleeding, and of offensive discharge.

UTERINE CANCER—ITS TREATMENT BY GASTRIC JUICE.

Dr. C. H. F. Routh read a paper upon this subject before the Obstetrical Section of the British Medical Association, advocating the use of gastric juice as a dressing to cancerous ulcers of the uterus—not for the purpose of superseding other means of treatment, but only as a powerful adjuvant. Dr. Routh's plan is to assist the healing process, after the whole, or part only, of the diseased mass has been removed. He directs that the cancerous growth about to be treated should have its surface destroyed, if it be not already in a state of ulceration; but even in these latter cases he thinks it well to remove a considerable portion. It matters not by what agent this is done—the knife, the ecraseur, strong caustics, or the actual cautery. He has used all, according to the case. After a raw surface is formed, or even if it be still covered by a slough, which is the result of the caustics or cautery, he applies the gastric juice in excess, on a piece of lint. He does this through a speculum. This is covered with a piece of oiled silk or gutta-percha sheeting, and the whole kept in place by a plug of cotton. This should be done twice a day, or oftener if it be practicable.

Dr. Routh says: "Let it be clearly understood that I am far

from saying that gastric juice will cure all cases of cancer. But I am sure it will cure some where other agents have failed."

He then relates four cases in which this plan of treatment had been successfully used, two of them being under his own care, and the other two under the care of other practitioners. The length of time during which these patients were under treatment was, respectively, thirteen, twenty-one, thirty-two and thirty-five days.

FORCIBLE AND RAPID DILATATION OF THE CERVIX UTERI FOR THE CURE OF DYSMENORRHŒA.

Dr. Ball, in the *New York Medical Journal*, for October, 1873, details nine cases of dysmenorrhœa in which great success attended forcible dilatation of the cervix uteri.

The following is Dr. Ball's method in detail:

"The bowels are thoroughly evacuated, the patient put under the influence of an anæsthetic, the cervix seized with a tenaculum and drawn down, and a metal bougie, as large as the canal will admit, introduced, followed in rapid succession by others of a larger size, until No. 7 is reached, which represents the size of the dilator used by Dr. Ball, which is then introduced, and the cervix stretched, in every direction, until large enough to admit a No. 16 bougie, which is all that is generally necessary. A hollow gum-elastic uterine pessary, of about that size, is then introduced and retained in position by a stem secured outside the vulva, which is allowed to remain about a week. During this time the patient is kept in bed, usually on her back.

"The effects of this operation are three-fold: first, by breaking up all adhesions, which are often very firm and unyielding, it relieves the constriction entirely, while, acting as a derivative, it cures the hyperemia of the cervix; and further, it establishes a radical change in the nutrition of the whole organ. . . . . .

"In cases of flexion, the relief is obtained by the straightening of the canal, which is produced by a change of the muscular tissue of the cervix from an abnormal to a normal condition. In the rapid dilatation of the parts, the constricting fibres are, of course, lacerated to some extent, and in healing up around the pessary must, necessarily, conform to their new relation."

Dr. Ball regards this method of treatment as having one great

advantage, viz., the saving of time, and alleges that he has accomplished more by it in a less number of weeks than it would take months to do by the ordinary method. He thinks it produces less constitutional disturbance than tents, and is safer than the metrotome, and free from some of the objections to the latter; as, for instance, when incisions are made through the tissues of the cervix, unless carried deep enough to prevent reunion, they must, of necessity, form a cicatrix, which will interfere more or less with the dilatation of the parts; while, if the operation does not succeed, the patient is left in a worse condition than before.

HYSTEROTOMY *versus* DILATATION.

On the other hand, Dr. Percy Boulton, in a paper read before the Harvein Society, March 6th, of which an abstract is given in the *Obstetrical Journal of Great Britain and Ireland*, on the subject of Hysterotomy *versus* Dilatation, announces his preference for the former over any form of dilatation.

The condition calling for the operation is the so-called mechanical dysmenorrhœa. These cases are due to a preternatural narrowing of one of the orifices of the uterus or the cervical canal, with or without flexion, and generally associated with ovarian pain and other symptoms. This stricture might be congenital, or the result of strong caustics, applied for the cure of ulceration or other purpose. Every one is agreed that the only thing to be done is to enlarge the passage through which the menstrual discharge has to flow, and one author thinks that if this is not done there is great danger that the constantly recurring congestion and irritation will eventually produce ovarian disease.

For the cutting part of the operation, he advocates the use of the metrotome *cache*. 1. Because the part introduced into the uterus is smaller than any other instrument used for the purpose, and is passed more easily. 2. It requires only once introducing, on account of cutting bilaterally, and therefore causes less irritation. 3. There is little or no danger of wounding the circular arteries of the os internum, or the vagina, in withdrawing the instrument. 4. It can be used without a speculum.

After the cutting is over, Dr. Boulton prefers a stem—not a plug—to any other dressing.

The author then gives the results of one hundred cases of

hysterotomy, operated upon by Dr. Thomas Hawkes Tanner, or himself, five hundred by Drs. Sims and Emmet, and three hundred by Dr. Greenhalgh—nine hundred in all, and shows that in this number hemorrhage, requiring plugging, occurred in two, pelvic cellulitis in six, and in one, fatal peritonitis was set up; but the patient having had tubercular peritonitis before operation, this was an unsuitable case. This was the only case of death.

Dr. Boulton then asks: "Would such evidence be considered favorable or not in any other operation? Is there any other operation which gives equal relief to the patient which is equally free from danger?"

He calls attention to the fact that dilatation of the os uteri takes place at every confinement, and whenever any intra-uterine tumor is removed; but as certainly as the uterus is left in repose so certainly does it close again. How could any one expect, then, he asks, any permanent cure from dilatation? He prefers hysterotomy because, after it the cure is generally perfect and permanent, provided the stem is worn at least four weeks, while a cure is rarely permanent after dilatation; and because cutting gives relief rather than being a source of irritation, while the reverse is true of dilatation.

In conclusion, he details six cases in which he had cured both dysmenorrhœa and sterility by hysterotomy, in two of which dilatation had been tried without success.

TREATMENT OF DYSMENORRHŒA.

Dr. Charles R. Drysdale, in the *Medical Press and Circular*, for October, has a paper upon this subject, in which he differs from both the preceding authors. After detailing the treatment useful for the neuralgic and congestive forms of the disease, he expresses the opinion that the cases of painful menstruation depending upon mechanical stoppage to the flow are comparatively rare; and that the assertion of Dr. Marion Sims that the treatment of the majority of uterine diseases should be surgical, seems to the author absurd in the highest degree. He further states that, according to the experience and statements of Drs. Kidd, of Dublin, and Gream, of London, the operation of incising the cervix, which is advised even more by Dr. Sims than by Dr. Simpson or Spencer Wells, may produce fatal hemorrhage, pelvic

abscess, a consecutive relaxation which is prejudicial to gestation, or a cicatrix. He also refers to the diverse practice of Drs. Barnes, Greenhalgh and Routh; the former, in cases of conical cervix, dividing the external os uteri, while the two latter say that in the great majority of cases the stricture is at the internal os uteri.

Dr. Drysdale advises, in cases of mechanical dysmenorrhœa, the introduction of various sizes of sounds, or the use of tents of laminaria digitata, until the uterus is large enough to admit a sound of the size of a No. 9 catheter. He considers the hysterotome as only required in cases of cicatrix after laborious confinements.

SUBINVOLUTION OF THE WOMB.

In the *Charlestown Medical Journal*, for May and September, there appeared articles upon the above subject by Dr. Baruch, in which the author calls attention to the improper diet of lying-in women, which he regards as a frequent etiological element in the production of the abnormal condition. He says: "They are fed during the first week on tea, toast and gruel; all stimulating and sustaining articles of diet are sedulously avoided, lest their 'heating properties' produce inflammation. The patient's stamina is impaired, the circulation suffers, and the due execution of the local processes of degeneration and absorption are interrupted."

Dr. Baruch recommends as measures of treatment the introduction of Simpson's large sound for a few minutes, twice a week, with the administration of full doses of fluid extract of ergot. Should these measures fail, the weekly introduction of spongetents should be tried. When the cervix has become indurated, hot water douches should be used, the Fountain Syringe being the best instrument for the purpose. Should erosions be found on the cervix, they should be touched once a week, after being thoroughly cleansed of the mucus or pus which envelops them, with chromic acid, one part to three of water, or the pure tinct. iodine. The application should be followed by the introduction of a plug of cotton, saturated with glycerine, which should be retained twelve hours. If the erosions extend into the uterus, weak solutions of iodine, chromic acid, sulphate of zinc or carbolic acid may be introduced by bits of sponge, held in Sims'

sponge-holder. Counter-irritation to the lumbar region, with hip-baths, are also useful.

NITRIC ACID IN THE TREATMENT OF UTERINE DISEASE.

Dr. Lombe Atthill, in a paper contributed to the *Obstetrical Journal of Great Britain and Ireland*, for June, 1873, relates several cases in which he had used the fuming nitric acid in the treatment of various chronic forms of uterine disease.

The cases treated were menorrhagia, connected with a rough granular condition of the uterine lining membrane, subinvolution, endometritis, and for checking the hemorrhage dependent upon imbedded fibrous tumors. As the result of Dr. Athill's experience, he draws the following conclusions:

1. Where tenderness on pressure exists, it should be removed, or at least materially lessened, by local depletion, before the acid is used.

2. That when this precaution has been taken, fuming nitric acid may be applied with safety to the interior of the uterus.

3. That when the cervix has been previously dilated, its application does not cause any pain.

4. That in some instances it appears to have a directly soothing influence on the uterine nerves.

5. That when applied through a canula, pain is sometimes produced, but less severe in character than that caused by the use of the solid nitrate of silver.

6. That its use is in some cases followed by hemorrhage of moderate amount, which, however, does not influence the result of the case.

7. That if applied to the *healthy* cervix, it may produce contraction, and possibly obliteration of the cervical canal, and that consequently, means should be adopted to guard the cervical canal, when *healthy*, from its action.

8. That in cases where imbedded fibrous tumors exist, the fuming nitric acid exercises a marked effect in controlling hemorrhage and in allaying pain.

Dr. Atthill's mode of applying the acid is as follows: Having previously dilated the cervical canal by means of sea-tangle tents, he seizes the anterior lip of the cervix by means of a vulsellum, and thus draws down and steadies the uterus; he then introduces

a bivalve intra-uterine speculum, made of vulcanite, to the depth of about an inch, and expands the blades slowly to an extent sufficient to permit a pair of fine forceps, holding a roll of cotton, to be introduced. With the latter he dries the inner surface of the uterus, and withdrawing the cotton, passes through the speculum a probe armed with a roll of cotton saturated with the fuming nitric acid. This being then withdrawn, the blades of the speculum are closed. A pledget of cotton soaked in glycerine is placed in the vagina, a strong thread being attached to facilitate removal, the lip freed from the grasp of the vulsellum, and the patient put to bed and kept quiet for some days.

ON INTRA-UTERINE MEDICATION.

Dr. Robert Barnes, in the *British Medical Journal* for January 11, has a paper upon the different forms of intra-uterine treatment. Speaking of intra-uterine injections, he says, several precepts have been enjoined to avoid their dangers. The great object aimed at is to avoid or lessen the risk of the fluid running along the Fallopian tubes. This is sought to be attained—1. By securing free dilatation of the cervix uteri before injecting, so that the fluid may readily run back into the vagina. For this purpose the preliminary use of laminaria tents is advised. 2. By using only graduated quantities of fluids, and injecting very gently and slowly. 3. By using a double canula, so as to secure a return current. To effect this the more surely, the openings of the canula at the uterine end are made at different levels.

Dr. Barnes has not much faith in the double canula. The end which should serve for the return current is liable to be choked. The preliminary free dilatation of the cervix, and the use of gentleness in propelling the fluid, should never be omitted; but the author does not believe that the observance of these precautions is an absolute guaranty against accidents. He thinks it better to use injecting-pipes having lateral openings of very fine calibre, so as to "pulverize" the liquid.

Dr. Barnes strongly advises not to use injections at all in cases of marked flexion of the uterus. Even if we dilate the cervix first by tents, and maintain the uterus erect during the injection, we cannot always be sure that the flexion will not be reproduced, so as to prevent the issue of the fluid; and it must not be forgotten

that it is especially in these cases that the uterine cavity is likely to be enlarged, and the Fallopian tubes dilated. For all these reasons, Dr. Barnes would restrict the use of intra-uterine injections within the narrowest limits. He rarely employs them now, except in cases of urgent danger from menorrhagia.

Besides, we may obtain almost all the advantages that injections are capable of giving by other means. For example, the agents which are useful in the form of solutions for injections, may be employed by swabbing, or solid, or in the form of ointment. Thus, where the use of chromic or nitric acid, or perchloride of iron, or iodine, or bromine, is indicated, these agents can be applied soaked on a sponge or piece of cotton, or a glass or hair pencil, the cervix having been previously well dilated. Nitrate of silver is best applied in the solid form. To lessen its liability to cause severe uterine colic, it should be fused with an equal quantity of nitrate of potash. Dr. Barnes objects to the ordinary way of using the solid nitrate of silver—that is, by holding a piece of the stick in a forceps or *porte-caustique*. The piece may fall out or break, and a fragment left behind in the cervix or body of the uterus may give rise to intense agony, and even metritis. To avoid this, Dr. Barnes adopts a contrivance which he learned from Sir Benjamin Brodie, who armed the ordinary probe by dipping the end into nitrate of silver fused in a watch-glass over a spirit-lamp. The author uses probes of platinum or silver, mounted on handles of convenient length. These probes may be curved to follow the course of the uterine canal. This, Dr. Barnes alleges, is by far the best way of applying nitrate of silver to the os and cervix uteri, and the only safe way of applying it to the interior of the uterine cavity.

One of the most widely useful topical applications to the mucous membrane of the cervix and body of the uterus is sulphate of zinc. It should be fused into small cylindrical sticks weighing three and five grains. These can be carried quite into the uterus without having touched the vagina by the way, by the use of a canula. This should be of the size of a No. 8 or 9 catheter, gently curved, open at the end, and supplied with a stilet or piston. The stick of sulphate of zinc is placed in the uterine end of the canula; the instrument is then passed into the uterus, the patient lying on her left side; and the operator's finger, placed on the os uteri, guides

the instrument. This may be done without the use of the speculum. When the instrument has gone the proper depth, the piston pushes out the stick, and the instrument is withdrawn, leaving the stick to dissolve. This it soon begins to do, and by its speedy effect in constringing the mucous membrane, it keeps itself *in situ* until it is completely dissolved.

A most precious way of applying astringents, caustics, solvents or alteratives to the interior of the uterus, is in the form of ointment or pasma. In this form we may use substances which cannot easily be applied in any other way. For example, we can hardly use bromine, or iodine, or mercury, in a solid shape, and to use them in liquid form is open to the objections already discussed. Almost anything can be made into an ointment or pasma, and thus we get a complete practical command over a large range of useful substances.

To introduce an ointment into the cavity of the uterus, Dr. Barnes uses an instrument similar to the one just described for using the sticks of sulphate of zinc, and capable, like that, of being used like a sound without the speculum. The instrument is charged by dipping it into the ointment, a sufficient quantity of which is carried into the uterus, and, by pushing up the piston, is deposited there.

If it be desired to apply a powerful liquid caustic, as chromic acid, or strong bromine, to the interior of the uterus, this can be done by the caustic-carrier. A few shreds of asbestos may be packed in the space between the eyelet-holes and charged with the fluid. On ramming down the piston, the fluid will be squeezed out.

PROLAPSUS UTERI.

Dr. G. P. Hochenberg reports in the *New York Medical Record* several cases of prolapsus uteri in which he found the use of tannin successful when other means had failed to give relief. His method is as follows: A glass speculum is introduced into the vagina, so as to push the uterus into its place. Through the speculum a metallic tube or syringe, with the end containing about thirty grains of tannin, is passed. With a piston the tannin is now pushed against the uterus, the syringe withdrawn, and the packing neatly and effectually completed with a dry probang,

around the mouth and neck of the womb. After the packing is completed, the probang is placed against the tannin, in order to hold it, and the speculum is partially withdrawn. The packing is now fully secured, and the instrument removed.

The application of tannin holds the uterus firmly and securely in place, not by dilatation of the walls of the vagina, but by corrugating and contracting its parts. At first the application may be made weekly, finally but once or twice a month.

Dr. Evory Kennedy, in the *British Medical Journal*, of August 17, reports a case of obstinate procidentia in a widow, aged sixty, who had borne six children, and who could not retain any form of pessary, in which he effected a cure by the use of the actual cautery. The iron was applied about an inch and a half from the vulva, round the surface of the vagina, to the extent of about half an inch. The subsequent treatment consisted of the application of the nitrate of silver. At the expiration of two months she was able to go about again. The uterus remained *in situ*, the cicatrix formed by the eschar preventing the descent of the organ.

Finally, Dr. Chas. R. Drysdale, in the *Medical Press and Circular* of October 23, in a paper upon this subject, advises that in cases of prolapsus, attended with inflammation and enlargement of the uterus, these conditions should be removed before having recourse to any other surgical procedure. But in all cases where there is rupture of the perineum (the uterus being of normal bulk), in all cases of procidentia, when great suffering results from prolapse, when the case is chronic, or when the bladder or rectum is much prolapsed, supports are clearly indicated. Nothing is of more importance than the choice of a pessary in the treatment of any form of prolapse of the uterus. The air-ball pessary of Gariel, or the air-ring, is often useful. The author dislikes Zwauke's pessary; Hodges' horse-shoe pessary is useful, but he prefers the simple ring pessary introduced by Dr. Grailly Hewitt, and thinks they are by far the best ever brought into practice. Hewitt's ring pessary is merely a copper wire ring, coated externally with gutta-percha, of various diameters, which can be moulded into any shape the practitioner pleases, thus being suitable for all cases of introversion, retroversion and prolapse. Sponge pessaries should never be used, as they become rapidly most horribly fetid. Stem pessaries are expensive and difficult to manage, and the author cannot

recommend any of them. Ashburvei's pad is an admirable support in cases of rupture of the perineum and procidentia. The most important purpose served by all pessaries which prove of any service, is to keep the uterus motionless. Two important points should be observed in the use of pessaries: one is, not to permit them to remain more than a week at a time in the vagina, and the other, that the very smallest size of pessary that will keep the uterus up should alone be used.

THE INTRA-UTERINE STEM IN THE TREATMENT OF FLEXIONS OF THE UTERUS.

There appears to be an increasing tendency among gynæcologists to resort to the use of the intra-uterine stem for the cure of flexions of the uterus.

Dr. Thomas Chambers, Physician to the Chelsea Hospital for Women, reports in the *Obstetrical Journal of Great Britain and Ireland*, several cases successfully treated by this means. Dr. Thomas Savage, Surgeon to the Birmingham Hospital for Women, in the November number of the same journal, states that he has used the intra-uterine stem for retroflections and anteflexions, in forty-four women who had not been impregnated, and in not one had any ill effects followed. The discharge produced by the presence of the instrument was slight, as a rule, but even when profuse had not been found troublesome, and could be kept in check by the frequent use of the ordinary astringent injections. It had always seemed to disappear on the use of the instrument being discontinued. Dr. Savage had tried the galvanic stem as usually sold, also the modification of it with a bulbous extremity, the plain vulcanite stem, Dr. Greenhalgh's stem, one devised by Mr. Ross Jordan, with a perforation near the extremity through which was passed a thread of India-rubber, after the manner of the winged catheters; but the tendency of all was to slip out. Dr. Chambers' stems seemed most likely to remain in without assistance, but in two instances they too had escaped. The padlock of Grailly Hewitt was in some cases an admirable contrivance, and most frequently remained *in situ*. The best means to adopt was to insert a stem, and keep it in place by a shelf pessary cut small, or a small ring elongated, and moulded to the size and shape of the vagina. The supports of Dr. Wynn Williams seemed to be very

useful; they consist of an oval ring, the centre being occupied by a perforated diaphragm of gutta-percha.

FIBROUS TUMORS OF THE UTERUS.

In the *Half-Yearly Abstract of the Medical Sciences*, for January, 1873, there was published a *resume* of a paper originally published in the *Gazette Hebdomadaire*, November 27, 1872, by Dr. Hildebrandt, in which he reports eight cases of fibrous tumor of the womb, treated by the subcutaneous injection of ergotin.

Langenbeck had already practiced injections of ergotin as a means of treating aneurism, and MM. Ruben and Zeute have directed attention to the good effects of the same treatment when applied in cases of menorrhagia and metrorrhagia after delivery. Dr. Hildebrandt has extended the use of this method, and expresses the hope that he has found in it a new means of treating fibrous tumors of the uterus. The solution used by Dr. Hildebrandt was made up of three parts of ergotin, 7.5 parts of glycerine, and 7.5 parts of water, used with a Pravaz's syringe. This solution produces much less pain than that used by Langenbeck, which contained alcohol. Dr. Hildebrandt states that these injections cause very little pain, and do not produce abscesses. The patient, after each injection with this solution, may return to her home. The site selected for the insertion of the syringe, was that part of the integument of the abdomen immediately over the tumor. The author remarks that the lower parts of the abdomen are more sensitive to puncture and injection than the parts around the umbilicus.

Judging from this report, ergotin administered by injection seems to be a powerful medicinal agent. In one of the cases a tumor which had extended beyond the umbilicus had disappeared; in a second, a tumor which reached as far as the false ribs, descended to below the umbilicus; and in four cases, where the treatment had been less complete, there was improvement in both the general and local conditions. The ergotin rendered menstruation less irregular, less abundant, less prolonged, and, above all, less painful. It is not easy to state precisely the mode of action of the ergotin in these cases. It is probable that in consequence of the contractions produced by ergotin in the nutrient vessels of the tumor, and in consequence, also, of the compression in all directions by the contracting uterine walls, the nutrition of the

tumor is interfered with, and that then fatty degeneration and absorption take place. It is probable, also, that intra-uterine tumors are more readily modified in this way than subperitoneal tumors, and ungomata more readily than fibromata.

Dr. George H. Kidd also had a communication upon the subject of fibrous tumors, which was read before the Dublin Obstetrical Society, and which was reported in the *Medical Press and Circular* of August 28.

Dr. Kidd recommends, in the case of such tumors as are removable by this means, the use of steel wire, in fact, a piece of piano-string, with the *ecraseur* instead of the soft iron wire commonly employed. The author says that the soft wire when passed up assumes the shape of the canal of the cervix, and it is difficult to expand it again so as to get it around a large tumor. By using a steel wire you can compress it to get it through the narrow os, and when you get it up it expands by its own elasticity, and you can slip it over the tumor with ease.

Dr. Kidd has used this means satisfactorily in several cases, and the procedure has been adopted by Dr. Atthill and other prominent British gynæcologists, all of whom speak in high terms of its great advantages over the method formerly used.

Finally, Dr. Abeille reports, in the *Gazette Medicale de Paris*, a case of successful removal of a large interstitial fibroma of the uterus, and, in his subsequent remarks upon the subject of pedunculated tumors and polypi, states that when the pedicle is attached at the level of, or a little above, the internal os uteri, whatever may be the size of the tumor, a period will certainly arrive at which the uterus, contracting energetically at a menstrual period, causes the growth to protrude from the orifice after more or less considerable hemorrhage. When the tumor has passed into the vagina, provided it is still fixed to the uterus, the flow of blood becomes continuous. This sign indicates the necessity for an early operation. These are simple cases, and the operation, which consists in cutting through the pedicle, is very easy. Even when the pedicle is attached at a higher part of the uterine cavity (even at its middle, the uterus being divided into two portions by a transverse line), the tumor may still be expelled during uterine contractions. However, for this result to take place spontaneously, more time and more energetic contractions of the uterus are required. The

nearer the attachment of the tumor is to the fundus, the more difficult does it become for the uterus to expel it from its cavity, notwithstanding energetic and repeated contractions. When the pedicle is inserted directly at the fundus of the womb, whatever be the size and thickness of the pedicle, spontaneous expulsion of the tumor is absolutely impossible.

Serious mistakes in diagnosis have been made by very experienced practitioners in consequence of their exploring the uterus between the menstrual periods. It is of the highest importance to remember that in all cases where the symptoms lead one to suspect the presence of an intra-uterine polypus, the exploration ought to be made during the menstrual flow, because it is during this period that the uterus, endeavoring to expel the tumor, pushes it towards the cervix, and causes great dilatation at this region.

THE CONSTITUTIONAL TREATMENT OF CHRONIC INFLAMMATION OF THE CERVIX UTERI.

Dr. Thomas More Madden read a paper upon this subject before the Dublin Obstetrical Society, February 8, of which an abstract was reported in the *Medical Press and Circular*.

In this essay, Dr. Madden expresses the opinion that physicians do not sufficiently realize the constitutional causation of the disease, and that this accounts for the vague and unsatisfactory character of the treatment, which is generally protracted, and frequently unrewarded by cure. Among the consequences of chronic inflammation of the cervix, Dr. Madden includes endometritis, ulceration and hypertrophy of the cervix, menorrhagia, vaginitis, leucorrhœa, hysteria, and, above all, sterility. The author thinks that undue importance is attached to the local exciting causes of these affections, while the constitutional predisposing causes are disregarded. He considers the scrofulous diathesis as one of the most common predisposing causes at work, and thinks that if the connection between struma and the more common forms of uterine disease were recognized, it would lead to a more satisfactory and rational mode of treating these complaints.

Dr. Madden, while fully appreciating the importance of local treatment, yet thinks that almost exclusive attention is paid to it, while the constitutional derangement is practically neglected.

As constitutional measures, the author recommends the simple

preparations of iodine, given in small doses, as originally ordered by Lugol, such, for example, as the one-eighth of a grain of iodine with one-fourth of a grain of iodide of potassium, in preference to the larger doses of its compounds now generally prescribed. In cases where symptoms of anemia predominate, the various combinations of steel with iodine are of singular benefit, all symptoms of uterine disease often disappearing under their use without any local treatment whatever. He has found no remedy so generally useful in these cases as a mixture of equal parts of cod-liver oil and syrup of iodide of iron. Other constitutional conditions than the scrofulous diathesis may be the predisposing causes of uterine disease, and here a modified antiphlogistic course of treatment is indicated. Frequently small doses of the bichloride of mercury, $\frac{1}{24}$ of a grain three times a day, in the tincture or infusion of bark, will be found useful. Notwithstanding the prevailing scepticism as to the efficacy of medicines in these chronic uterine affections, Dr. Madden's experience of many cases has fully convinced him that, although the local symptoms may subside for a time under purely local treatment, the patient is more quickly as well as more permanently cured by the administration of constitutional remedies, such as those just referred to, whilst due attention is, at the same time, paid to the local treatment of the ulcerated or inflamed part. The prevailing type of chronic uterine complaints, like that of all other general diseases of the present time, is essentially asthenic, and requires the administration of tonics in almost every instance, and more especially the preparations of steel, iodine and quinine combined, when circumstances admit of it, with change of air and mineral waters. Dr. Madden speaks with great confidence of the curative effects of climate and of mineral and thermal waters in cases of chronic uterine disease, having given his attention to the subject during several years of travel and clinical observation in the health resorts of the Continent and the Mediterranean shores of Europe and Africa, as well as at the spas of Germany, France and Italy.

ON THE USE OF DRAINAGE TUBES FOR THE PREVENTION OF SEPTICEMIA AFTER OVARIOTOMY.

Dr. J. Marion Sims has contributed to the *New York Medical Journal*, for December, 1872, an interesting paper upon ovari-

otomy, which has since been published in pamphlet form, in which he expresses the belief that as regards the question of the treatment of the pedicle, the clamp has seen its best days, and that when it comes to be positively determined, he has scarcely a doubt that the decision will be against the principle of drawing the pedicle externally; and, although himself and Dr. Emmet have for the past ten years advocated and practiced the plan of tying the pedicle with silver wire and dropping it back into the abdomen, he yet thinks "the time may possibly come when clamps and ligatures, whether of twine, catgut or wire, may give way to torsion of the arteries, or to their obliteration by enucleation of the pedicle from the coats of the cyst."

But the most important portion of Dr. Sims' paper relates to another matter. From a study of his own *post-mortems* and those of Mr. Spencer Wells, he arrives at the conclusion that "septicemia is the great outlet of life in ovariotomy."

In Mr. Spencer Wells' twenty-eight fatal cases in which *post-mortem* examinations were made, two died of tetanus, and of the remaining twenty-six, "two had pyemic poisoning, and twenty-four presented the infallible *post-obit* evidences of septicemia. In every one of Dr. Sims' seven *post-mortem* examinations, and in every one of Mr. Wells' twenty-six, were found uniformly the same pathological appearances. In all of them was found a quantity of reddish or grayish turbia, or fetid, or putrid, or acrimonious serum in the peritoneal cavity; and in cases slowly dying of pyemia, were invariably found pyogenic reservoirs in the pelvic cavity. In view of these facts, Dr. Sims asks, "Is it not logical to infer that these pent-up fluids are the causes of the blood-poisoning that so uniformly, I should say universally, attends fatal cases of ovariotomy?

"I do not pretend to deny that death may occur from shock, or from hemorrhage, or from heart-clot, or from exhaustion; but I feel sure that these, independently of blood-poisoning and its legitimate causes, are of comparatively rare occurrence. If, then, we have such an almost universal evil to deal with as septicemia, and if that septicemia is, in thirty-seven cases out of thirty-nine, clearly traceable to the poisonous fluids effused in the peritoneal cavity, is it not self-evident that the indication, both of prevention

and cure, is to draw off these poisonous fluids in the speediest and most direct way possible?"

The author awards to Dr. E. R. Peaslee the merit of having first recommended and practiced washing out the peritoneum with disinfectants, so early as 1855.

"To him (Dr. Peaslee) we owe the principle of intra-peritoneal medication. I claim only to be his coadjutor. But the rule that he would establish for exceptional cases I wish to make applicable to all alike; and instead of washing out the peritoneal cavity at the top, I propose to open it at the bottom, as he did in 1855, and let the fluids run out spontaneously and continuously. The natural outlet of the peritoneal cavity is through the Douglas *cul-de-sac*. If the drainage through this *cul-de-sac* be made promptly and thoroughly, there is every reason to believe that pyemic collections, such as happened to Mr. Spencer Wells, could never take place; and that septicemic poisoning would in a great measure be prevented."

Dr. Sims proposes, in brief, to puncture the *cul-de-sac* of the vagina behind the cervix uteri, and to pass a tube of some sort into the peritoneal cavity to drain off any effusion that may take place in said cavity. He proposes to do this in every case of ovariotomy, whether there are adhesions or not. If in three or four days we see that there is no necessity for this precautionary step in the operation, we have only to remove the tube, and in twenty-four hours the little puncture closes up spontaneously. The puncture adds nothing to the danger of ovariotomy, cannot possibly do the least harm, and may be the means of saving life.

LATENT GONORRHŒA IN THE FEMALE.

Dr. E. Noegerath, of New York, recently published in Germany a small work under the above title, which has received a great deal of attention.

The theory of Dr. Noegerath is so startling, and so important in the physical and moral issues which are involved in its acceptance, that it demands the earnest and careful consideration of the medical profession.

The author concludes with these propositions:

"1. As a rule, gonorrhœa, both in the male and female, persists during the lifetime of the individual, in spite of apparent cure.

"2. There exists, therefore, a latent gonorrhœa in the male as well as the female sex.

"3. This latent disease, both in the male and female, may cause either a latent or an acute gonorrhœa in a previously healthy person.

"4. A latent gonorrhœa manifests itself in time as acute, chronic or recurrent peri-metritis, or ovaritis, or as a catarrhal affection of the individual parts of the mucous membrane of the genital tract.

"5. The wives of those men who, at any period of their lives, have had a gonorrhœa, remain, as a rule, sterile.

"6. Those who may become pregnant, either abort or bear only one child. In exceptional cases three or four children may be produced.

"7. A fungous can be developed from the vaginal secretions of women who are affected with a latent gonorrhœa, which is completely analogous to that obtained from the product of an acute attack of gonorrhœa in the male."

Dr. Noegerath estimates that eight hundred out of every one thousand men have suffered at some period of time during their life from gonorrhœa, and that these eight-tenths of our male population are "doomed beyond hope; no life-long repentance, no rigorous asceticism, no known method of treatment, no assurance derived from years of continued health and apparent freedom from disease, can save them, for the consequences of their sin will inevitably be visited—not on their children, for in the majority of cases paternity is denied them, but—on her whom they hold nearest and dearest, for *infection* and *sterility* must be her lot."

At a meeting of the Obstetrical Society of Edinburgh, held April 23, 1873, this subject was introduced for discussion by Dr. Angus Macdonald.

Dr. Macdonald believed that Dr. Noegerath had hold of a great idea, and one which possessed a large amount of evidence in its favor, and that although he regarded his assumptions as extravagant, they deserved the careful attention of gynæcologists.

Dr. Matthews Duncan coincided to some extent in the deductions of Dr. Noegerath, but he also thought that Dr. N. had gone too far in his conclusions.

Drs. Keiller and Young, however, affirmed that their experience

did not support the views of Dr. Noegerath, and stated that they had often treated married men for gonorrhœa, and their wives had never complained of suffering from the symptoms alleged to be produced by it, and that they had never noticed any falling off in their fertility.

DILATATION OF THE FEMALE URETHRA.

Dr. Oscar H. Allis reports, in the November number of the *Obstetrical Journal of Great Britain and Ireland*, two cases in which he had successfully dilated the female urethra for the removal of two large calculi (the circumference of the largest being three inches and a half) in one case, and in the other of a polypus attached to a roughened, thickened portion of the bladder, at a point corresponding to the right side of the pubes. In both cases the dilatation was effected in about fifteen minutes, under ether, and in neither of them was there left any incontinence of urine.

ARTICLE III.—*Transactions of the Chicago Society of Physicians and Surgeons. Meeting of December* 8, 1873. Reported by PLYM. S. HAYES, M.D., Chicago.

The Society met in Parlor No. 1, of the Grand Pacific Hotel; the President, Dr. A. Fisher, in the chair.

The Censors reported favorably on the applications for membership of Drs. Chas. Hayes, Simons, Tucker, Henrotin, Jr., Hews, and Hamill, who were unanimously elected.

Dr. Wood read a paper on "Waxy Kidney," which he illustrated by a case from practice.

Dr. Jackson, Chairman of the Section of Obstetrics and Diseases of Women and Children, then read the report of the sub-section of Gynæcology.*

After reading the report, the Doctor, by request, gave an account of two cases of fibroid tumors of the uterus, which were treated with hypodermic injections of ergotine. One of the cases had recovered, while the other was yet under treatment, and improving. The solution used was one part of ergotine and three of water.

* Published in full in *Chicago Medical Journal*, February, 1874.—ED.

In one case the injections over the tumor were followed by abscesses; subsequently the region of the deltoid was selected, and the injection introduced deep into the muscular fibres, with as good result as when made over the tumor.

Dr. Owens described a method of treating the pedicle after ovariotomy, by means of an instrument which kept up a continuous traction on the wire ligature. He gave a description of the means employed in cleansing and disinfecting the abdominal cavity after ovariotomy, which consisted of a nasal douche that had inserted in the end of the tube a gum-elastic catheter. The catheter was introduced into the abdominal cavity through the lower portion of the wound, the douche holding the liquid being at the same time held above the patient; when the douche was nearly emptied, it was held below the patient, thus forming a siphon of the tube and emptying the abdomen.

Dr. Owens then reported the following case:

Mr. ——, aged 33, contracted syphilis when in the army. Two years ago the epiglottis, uvula, and part of the soft palate, were destroyed by syphilitic ulceration. The cicatrix contracting left only a small orifice between the pharynx and the mouth. The patient could not talk above a whisper; and when eating or drinking lies on his back with head and shoulders somewhat elevated; he forms a bolus of his food, and by means of the tongue throws it into the throat, where it is grasped by the pharyngeal muscles, while the posterior portion of the tongue partially covers the larynx. He experiences more difficulty in swallowing liquids than solids, but rarely does anything enter the trachea. The Doctor then exhibited the patient.

Dr. Hyde submitted the following resolution, which was unanimously adopted:

WHEREAS, We have read the memorial relative to the Medical Corps of the Army, addressed to the Senate and House of Representatives of the United States, which memorial was prepared in compliance with the unanimous resolution of the American Medical Association, adopted at its last meeting, in St. Louis, Mo.; and

WHEREAS, We heartily concur therein; therefore

Be it resolved, That we, the Chicago Society of Physicians and Surgeons, respectfully invite the attention of our Representatives in Congress to the memorial, and earnestly request their aid in securing the passage of the draft of a bill which accompanies it, entitled "A Bill to Increase the Efficiency of the Medical Department of the Army."

Upon a motion of Dr. Jackson, the President appointed Drs. Jackson, Lyman and Davis a committee to prepare and submit a fee bill to the Society.

Dr. Lyman moved that a committee be appointed to consult with the Chicago Medical Society in regard to the feasibility of having quarterly a union meeting of the two Societies; the motion was laid over until the next meeting.

Dr. Owens proposed the following resolution, which was carried:

Resolved, That a committee of two be appointed by the Chair, to be known as the Committee on Clinical Reports, who shall cause to be presented to the Society, monthly, clinical reports from all medical institutions which may be found accessible.

The meeting then adjourned.

Selections.

Cases of Peripheral Paralysis, their Causes and Nature. By S. G. WEBBER, M.D.

The nerves are generally protected from slight injuries by their situation. This is not, however, universal, and several nerves pass near the surface or over the bony prominences, so as to be more or less exposed to injury. Of course, severe injuries may affect nerves as well as other structures. The protection afforded by being on the inside of a joint, as in the axilla, fails in case of dislocation, and the head of the displaced bone may seriously injure the neighboring nerves.

Symptoms arising from pressure vary greatly, according to the severity with which the cause acts and the length of time during which the pressure is exerted. This probably explains a difference of opinion in regard to the causation of paralysis of the radial nerve. Duchenne, in his second edition, recognizes only a rheumatic origin. Panas, in a memoir read in 1871 before the Academie de Medecine and lately published,* refers all such cases to pressure as the cause. Duchenne, in the third edition of his work, refers to Panas' memoir, and says: "I admit that, in some cases, compression of the posterior part of the fore-arm or of the radial nerve should exercise a certain influence; but it seems to me un-

* Archives Generales de Medecine. Juin, 1873.

questionable that, in the numerous clinical cases which I have observed for more than twenty years (about one hundred), the action of cold has played the chief part in the etiology of this form of paralysis."

The radial nerve is not the only one which suffers from pressure or the action of cold, and it is not unlikely that all such cases agree in symptoms more closely than is apparent from published records, the intensity of some symptoms varying in different cases.

When nerves are divided, the peripheral end and the muscles which they supply degenerate; after reunion of the nerve, restoration, more or less complete, takes place. The electrical reaction of the nerves and muscles suffers a corresponding change, which is characteristic. A few days after the injury, the muscles lose their sensitiveness to the action of the faradic or induced current, and this loss increases until the strongest faradic current, applied by means of moist electrodes to the skin over the muscle or its nerve, no longer excites contraction. When a nerve is entirely separated from its centre, this extreme limit of change is reached within two weeks. In many cases, not all, the reaction of the muscle to the galvanic current is increased, while that for the faradic is diminishing. Later, as the degenerative change in nerve and muscle advances, the reaction to the galvanic current diminishes and finally disappears. With this, there is more or less atrophy of muscles.

When the nerve is restored, the reaction to the galvanic current usually reappears first, then voluntary motion, and, finally, the reaction to the faradic current. This order of return to normal conditions is not invariable.

If only a few fibres of a nerve trunk are injured, only a partial paralysis will follow, unless subsequent inflammation involves the whole trunk. One muscle alone may be paralyzed, or, if there is more than one source of innervation, it may be only weakened, and may still respond to the will and to electricity, though less perfectly than in health. If, instead of division of fibres, there is only a slight injury, every grade of change in their functional relations may be found from normal to entire loss. To this, and perhaps owing to hasty observation, is probably due the difference in opinion to which reference has already been made.

The means by which nerves may be compressed are various: a crutch pressing on the nerves in the axilla is not uncommonly the agent by which the compression is made; a wide board carried under the arm may act in the same way; one writer mentions badly fitting corsets; a dislocated bone, humerus, or femur, or other bone, may press on the nerves in the neighborhood of the joint; certain positions taken by the limbs during sleep, or the pressure of one part on another, as the head on the arm; a bandage applied tightly to a limb,—these are ways in which pressure, sometimes

very gentle, but long-continued, may cause paralysis. A fall or a blow may exercise a more violent pressure of short duration, and is not unfrequently the cause of local paralysis and wasting. As the nerve is more severely bruised, and in part or entirely ruptured, compression is rather too mild a term, and contusion describes the injury better; but sometimes it is not easy to decide whether compression or contusion is the better. Often, in such cases, the muscles are paralyzed and suffer atrophy as a direct result of the injury.

That the severity of the cause producing the lesion has a controlling influence over the change in the electrical reaction, is the probable explanation of the difference in the following cases:

CASE I.—D. C., aged 23, fell, about seven weeks before I saw him, bruising his shoulder and breaking his collar bone. The deltoid and biceps were extensively wasted; there was inability to raise the arm or to flex the elbow. The muscles of the forearm were not affected. The triceps brachialis was scarcely at all implicated. The strongest faradic current the patient could bear caused very little if any contraction in the deltoid and biceps. The skin covering these muscles was very insensitive. The patient was seen only a few times, and gave up the treatment by electricity, saying he did not have time to attend. The atrophy of the deltoid may have been due to direct violence; that of the biceps, and the slight injury to the triceps, were probably secondary.

CASE II.—Lizzie B. was first seen early in April. About January 1st, she fell, striking her shoulder. The arm felt lame, but was not very painful. Immediately after, she was attacked with variola, and only three weeks later was it discovered by her physician that the arm was out of place. He replaced it, and the arm remained bandaged for five or six weeks. As nearly as could be learned from her statement, it would seem that immediately after the fall she had some power over the arm, but while sick and before the bandage was put on, this was lost and was not recovered.

She first applied at the City Hospital as an out-patient, and Dr. Bolles sent her to me.

When seen, the fingers were weak, the thumb and forefinger being weaker than the others. All the muscles of the forearm responded, however, to the will. The elbow could be bent and nearly straightened. The only motion of the arm at the shoulder-joint was a slight pendulum-like swing backwards and forwards. The shoulder could be raised a little, as in a shrug. There was a sense of pricking just over the head of the humerus and at the elbow, not in the fingers. There was lessened sensibility over the shoulder and on the outside of the arm. Sensation inside of the arm, over forearm and hand was normal. There was a "hard ache" in the shoulder, so severe as to keep her awake at night.

The deltoid, supra- and infra-spinatus, and perhaps the serratus

magnus, were atrophied, especially the anterior part of the deltoid, causing the head of the humerus to project so prominently as to raise the question at first as to whether it was in its proper place. All the muscles responded fairly well to electricity, making allowance for their diminished bulk.

Galvanism was used, the positive pole being placed on the back of the neck, and the negative on the nerves, and stroked over the muscles. Passive motion was also used, and she was directed to rub the shoulder. The pain became less, so that she could sleep better. After three applications of electricity, she could use the arm to sew, could pin her cloak, and could raise the arm somewhat from the side.

She attended only very irregularly, being away for many days out of town. The last record was made after nine applications of electricity, more than a month after the first visit. The deltoid had then increased in bulk, covering the acromion and head of the humerus much more than at first. Motion was possible in all directions, but the arm, with forearm bent at right angles, could be rotated outwards only about one-half, and could be raised only to a horizontal. She could sweep, sew and iron, but had not strength enough to wash.

It may be a question as to whether the humerus was dislocated, or whether the atrophy of the deltoid caused it and the acromion to become so prominent as to simulate a dislocation; also, whether the restrained position of the arm had any part in the causation of the atrophy. This seems unlikely, as six weeks' disuse and the bandages necessary in case of dislocated humerus would not be likely to affect the deltoid. And she thought motion was lost before the bandage was applied.

While this case was under treatment, I saw another patient, a lady, who, from a fall three months previously, was suffering from inability to use her arm. The same muscles were affected, though the posterior fibres of the deltoid suffered more than the anterior. There were some symptoms of neuritis, and hyperæsthesia over the course of the nerves, with loss of faradic contractility, but preservation of susceptibility to the galvanic current. The treatment was short, owing to removal out of town, and but little advantage was gained from the two or three applications made.

In these cases, the cause was almost identical in nature, but undoubtedly varied in intensity. A similar variety in the symptoms, especially in the electrical reaction of the muscles, is found. In the first case, only seven weeks had elapsed from the time of the accident until I saw him, yet there was extensive atrophy and loss of electro-muscular contractility. In the second case, after three months, the latter was still retained; while in the third case, after three months, it was absent. In all, there was paralysis as a prominent symptom, with anæsthesia in two and hyperæsthesia in one.

Cases of paralysis from dislocation of the humerus are reported in medical writings. I have never seen a case, unless that of Lizzie B. is such. A while since, I was consulted by letter in regard to a patient suffering from such an injury. The deltoid and biceps were most affected, and there was partial anæsthesia over the deltoid.

Cases of paralysis following dislocation of the femur are rare. An interesting case is reported by Onimus and Legros.* A man, 46 years of age, received a mass of earth and stone on his left thigh. There was a dislocation, probably ilio-ischiatic, of the femur. There was severe pain, anæsthesia, and inability to move the leg. After reduction, the pain ceased, but the numbness remained, and he could not walk. After a slight attack of erysipelas of the face, pain in the leg returned. Five months after the accident, the left leg was found much emaciated, colder to the touch than the other, œdematous, especially around the tibio-tarsal joint. The leg could be feebly flexed and raised, the foot could not be raised nor the toes extended; toes flexed only partially. Sensation was much diminished; pressure was painful. Walking was not possible, and standing was painful. Electro-muscular contractility was very much enfeebled in all the flexor muscles of the leg, somewhat so in the extensors. It was diminished in the muscles of the calf, and gradually disappeared in the peronei and the tibialis anticus and extensor communis. Under the application of the galvanic current, the pain ceased, the œdema disappeared, and the patient could walk without a cane.

A much more common seat of paralysis is the radial nerve. It occurs, generally, during sleep. It is in regard to this paralysis that the difference of opinion between Duchenne and Panas, above referred to, exists.

Duchenne, in his third edition, says that the paralyzed muscles retain intact their electro-muscular contractility, and generally the muscular sensibility is not diminished. Once only has he observed enfeeblement of the cutaneous sensibility in the forearm and hand.

Panas also mentions the same characteristics, adding, however, that cutaneous sensibility may be perverted.

In the cases which have happened to come under my care, the electro-muscular contractility, as compared with the other side, has been found diminished when such comparison has been made at a long enough interval after the origin of the paralysis. If the two sides are not compared, the contractility remaining is sometimes so great that it might be considered normal; yet on making the comparison it is found more or less diminished. I have found the cutaneous sensibility for touch and temperature and pain almost

* Traite d'Electricite Medicale. Paris, 1872.

always diminished, or perverted, and for electricity sometimes increased. In the cases where paralysis has been most marked and existed longest, I have been able to see no difference in its nature or quality from that found in the cases due to severe lesion above recorded, excepting that the muscular atrophy was not marked enough to be recognized. Had the paralysis continued longer, it is possible that atrophy might have been found also.

In the number of this Journal for July 6th, 1871, I published four cases of this form of paralysis. In three, the electro-muscular contractility was diminished as compared with the other side; not mentioned in the other. Sensibility was diminished in three, perverted in the other. There was also some œdema of the hand, discolored surface, a mottled appearance and diminished heat as measured by the touch, once by the thermometer.

In several cases which I have since had under treatment, the same general characteristics have been observed in regard to sensation, coloration of skin, and apparent temperature. In only one has the electro-muscular contractility, as compared with the other side, been noted; the statement has merely been made that the muscles affected responded to faradization. In one case, it is noted that the muscles moving the thumb and index finger responded poorly to the faradic current, better to the galvanic.

Of the cases first published, in Case I, the paralysis came on while lying with the arm over the edge of a sofa in a drunken stupor; in Case IV, it came on during heavy sleep after great fatigue and a glass of whisky; in Case III, it came on as the direct result of carrying a basket of lemons on the shoulder and arm, the basket pressing on the outside of the arm, over the course of the radial nerve. Case II, may have been caused by a draught of cold air, in accordance with Duchenne's theory.

In the half-dozen recent cases, the paralysis was first noticed after sleeping. In only two was there any chance that cold was the cause. In one of these, seen in March, the patient said that, being warm, she threw off a part of her covering, but was not aware that she was chilled; she thought she lay on her arm, and slept rather heavily towards morning. The other was very slightly affected, and is for that reason reported.

Case III. Mrs. L. Seen with Dr. Ingalls. Had rheumatism ten years ago, and chronic arthritis since; at times pain in arm, especially during dull days. The joints were rather swollen. Cardiac enlargement with murmurs. The day before I saw her in the evening, she fell asleep in her chair; could not tell on which hand she leaned; slept less than forty-five minutes. On awakening, the left arm felt numb and prickly, and she had lost in part the use of the left hand. The sense of prickling passed off, but the power to use the hand did not return. The back of the hand, the thumb and fingers, were less sensitive than normal, the

change being most marked in the thumb. The extensors were weak; pronation and supination were possible; flexion was slightly interfered with, there being a sense of stiffness. The hand was somewhat swollen, slightly congested, but not cold. All the muscles responded to the faradic current.

The effect was so recent, and seemed so slight, that only bathing in hot water and friction were advised. Recovery was perfect.

In this case, perhaps, time enough had not elapsed for change in the electrical reaction to appear. Whether pressure was the cause, or cold, it might be difficult to decide; certainly the symptoms resembled those found in other cases where pressure was undoubtedly the cause.

Taking the accounts given by Duchenne and Panas, it will be seen that several of the cases which I have reported differ in regard to the electro-muscular reaction, and all differ in regard to the condition of the cutaneous sensibility.

When a patient is seen the day after the origin of the trouble, it may well be supposed that the electrical reaction of the muscles would be normal, but after a few weeks have passed, it would probably be found, on comparing the two sides, that there is, almost always at least, a slight difference. The sensitiveness of the muscles to electrical stimulants varies much in different individuals, depending perhaps upon the amount of adipose tissue, the softness and suppleness, or dryness of the surface, and perhaps, more than all, upon the person's occupation. I have found the greatest susceptibility in teachers of the piano-forte. Hence, if only the affected arm is examined, the electrical contractility may be considered normal, when really it is diminished.

The cases which have come under my observation, where cold could be considered as the cause of the paralysis, were not essentially different from those where it was caused by pressure, unless it be that the electro-muscular contractility was either not affected or not tested as compared with the other side. In a case reported by Rosenthal,* which was probably caused by chill, it was decreased. In a case reported by Onimus and Legros, of so-called rheumatic paralysis of the anterior tibial nerve, it was likewise slightly diminished. In another case reported by them, the electrical reaction of the deltoid was below the normal for the faradic current, increased for galvanic.

It is hardly necessary to multiply instances.

As in all these cases the symptoms are identical, making allowance for variations in the severity with which the injurious agent acted, and the difference of time between the origin of the trouble and the examination, it is reasonable to consider the con-

* Electrotherapie, 2nd Edition, p. 269.

dition of the nerves, induced by these different agents, the same. It is only another instance where the same pathological condition is produced by different agents.

There is first pain, a peculiar pricking sensation, with this is numbness, and loss of motor power. The pricking sensations pass away, but the numbness and loss of power persist. The limb generally becomes œdematous, has a mottled or purplish color, and is frequently cooler than its fellow. To this may be added, in cases which are not seen soon after their origin, a diminution of faradic contractility in the muscles, sometimes the galvanic current acting more readily than normal. In recent cases, and in cases of slight intensity, some symptoms may be wanting.

A slight neuritis would explain all the symptoms.

The pricking is caused by irritation of the sensitive fibres, the numbness and loss of motor power by impaired conductility due to the inflammation. The œdema and discoloration, and the sinking of temperature, are due to implication of the vaso-motor fibres in the inflammation. The cause being slight, or of short duration, these symptoms are not found in their highest degree of development, and some cases recover easily; others, where the cause acted with more severity, are more protracted, and a few only result in atrophy and permanent disability.

Jaccoud, describing the symptoms of neuritis, gives as the principal, swelling of the nerve, no fever, pain following the course of the nerve, even to its terminal branches, increased by pressure, tactile sensibility diminished with persistence of spontaneous pain—painful anæsthesia. In mixed nerves, these symptoms are accompanied with startings and contractions of the muscles, to which soon succeed motor paralysis with loss of reflex movements and of the electric contractility. If the paralysis persists, muscular atrophy, lesions of nutrition, erythema, vesicular eruptions, and, in chronic cases, deposit of pigment and arthropathy. These symptoms are similar to those found in the cases already reported.

It would seem, from the consideration of the cases reported, that Duchenne is wrong in regard to the exciting agent of paralysis of the radial, and that, as Panas contends, it is generally caused by pressure. I cannot help thinking that both are wrong in regard to some of the important symptoms which are present in nearly every case, especially if it is of more than a week's duration. It is hardly necessary to refer to other authors, as these two represent the two phases of opinion, and most others refer to Duchenne. Eulenburg has, however, stated the symptoms correctly, and says that Duchenne is not correct in denying the loss of electro-muscular contractility. He also recognizes pressure during sleep as a cause.

Another cause of neuritis, which is not generally mentioned as such in text books, is overwork.

The following is an interesting case, showing as it does, in a mild degree, all the symptoms usually found in such cases. The patient was sent to me by Dr. Ingalls.

Case IV. Miss E. D., aet. 22, about three weeks before I saw her, while taking care of a brother sick with typhoid fever, noticed a tingling in the fingers of the right hand; they and the hand were also numb. These sensations occurred in the day time; there was no special strain or other cause for them, except the constant labor of nursing. With the numbness. was motor weakness. There was a steady increase of the affection. The pain was worse at night, and for a week began in the shoulder externally, and ran down to the fingers.

Two points could be distinguished as such, three-eighths of an inch nearer on right than on left back of hand, and on palmar end of right index finger one-eighth of an inch nearer. Sense of prick was more acute on the right, but the sense of mere contact with a blunt steel was more acute on the left.

There was a tenderness over the nerve, at the bend of the elbow, and over the ulnar nerve. The action of biceps and of the extensors in forearm was not easy, there being a sense of stiffness. The faradic contractility of the extensors of forearm was diminished; the galvanic contractility was increased, the muscles reacting to ten cells on the right, and to only fourteen, or perhaps thirteen, on the left. The flexors were not tested by electricity.

The galvanic current from fifteen cells was used, the positive pole being placed on the back of the neck, the negative passed over the muscles and held quietly over the nerves. After two applications, the faradic contractility of the muscles had improved. On the fourth visit, the sensation on back of the two hands was equal, and the same as it was on the left at the first visit. Ten days after I first saw her, it is recorded that she had no pain in the arm; it was strong and all right.

Soon after, other cases quite similar were seen, one seeming to originate from overwork in nursing, another from overuse of the arm in sewing and playing the piano, with, perhaps, a strain as predisposing cause; two others were from overwork in playing piano. In two cases, the electro-muscular contractility seemed increased on the affected side.

In some of these cases the affection of the nerve perhaps hardly deserved the name inflammation, possibly congestion would be more correct, there being, indeed, only the first stage of inflammation where several of the functions were increased rather than diminished.

Of paramount importance to the patient is the fact, that all these cases, so far as I know, where treatment has been commenced early and persisted in, have recovered. Where treatment

was delayed, the cure was longer in being reached, but generally could be expected. The longest duration was two years before treatment; treatment extended through three months, with almost complete recovery.

The treatment consists in the application of either the faradic or galvanic current to the muscles and nerves affected. The galvanic current would probably be found more generally successful in a shorter time, though in many cases the other accomplishes all that is desired.

A few cases, as in Case III, may recover without electricity, but in most cases that agent will at least hasten a cure, and in other cases a cure has not been obtained after a year or more, without the use of the electricity, but followed soon after that agent was employed. It is not, then, always safe to wait for the unaided efforts of nature.—*Boston Med. and Surg. Journal.*

Bloodless Surgery of the Extremities. By J. E. KELLY, L.R.C.S.D., Surgeon to Jervis St. Hospital, and Lecturer on Anatomy and Physiology in the Ledwich School of Medicine, etc.

Within the last fortnight I have applied Esmarch's method to four surgical cases. This coincidence induces me to detail some facts directly bearing upon the question of "Bloodless Surgery," together with a few points worthy of consideration.

Whether we concede to Esmarch the honor of an invention, or merely the adaptation of a rarely applied and undeveloped principle, is of little moment to those who derive most benefit from an expedient which we must regard as constituting one of the most striking advances in modern surgery. Simplicity and easy application are perhaps the strongest recommendations of a method, the novelty of which will be my excuse for briefly describing it. A strong elastic bandage is applied in the ordinary manner to the extremity, firmly and slowly; a piece of india-rubber tubing of the diameter of the thumb is wound very tightly round the limb immediately above the margin of the bandage, which is then removed. The preparations are complete, and the limb is perfectly bloodless until the tubing is removed. The facility of operating under these circumstances can hardly be realized. The structures have a semi-transparency resembling that resulting from preservation in turpentine or glycerine, and, as may be expected, they are picked out and distinguished with remarkable facility. The operations upon which Esmarch's method confers the greatest advantage are those in which much blood is ordinarily lost, or those

performed under circumstances which prevent the operator from providing efficient aid. Amongst the former, resections and explorations, either for foreign bodies or where preliminary investigations are judicious, may be specially noticed. These preliminary measures, so conservative in their aim and results, have often been frustrated by the danger or dread of the consequent hæmorrhage. Now we are enabled to pursue them bloodlessly. In provincial and in military practice a surgeon must frequently operate without skilled assistants, or perhaps without any. Here again the advantages of the method are indisputable.

Against the obvious advantages of the expedient we must in justice weigh some well-founded objections. While advocating, and in some instances practicing bloodless surgery, I regard it as being unnecessary in many cases, and in others as only to be used with great caution. In cases where collections of septic matter exist, Esmarch warns us against the danger of favoring by pressure its entrance into the circulation. The absence of bleeding points during the operation may cause us to neglect to secure some vessels which will subsequently be troublesome. This occurred to a suggestive extent in the second of the accompanying cases, but the hæmorrhage was quickly checked by the application of ice. As observed in the amputations performed in Guy's and other hospitals, the edges of the incisions may slough. I noticed this in my first case only, and my observations on it and the succeeding cases induce me to regard the sloughing as proportionate to and dependent on the duration of the pressure of the elastic bandage, and not to the bloodless condition of the tissues. In the first of the series, being anxious to do full justice to the method, I applied the bandage in the ward, before the removal of the patient to the operation theatre, with the view of making the limb perfectly exsanguineous. When the patient was chloroformed, the caoutchouc tubing was applied, and the bandage, after being on for about ten minutes, was removed. The results were perfect; so bloodless were the parts that in my subsequent operations I allowed the bandage to remain on but for a few minutes, and in my last, immediately after the limb was entirely enveloped, I applied the tubing and removed the bandage. This operation was completely bloodless, and along the line of the incision not a trace of sloughing could be observed; in some parts even there was an effort at union by adhesion, but the condition of the deeper structures would not admit of such a rapid closure. I am inclined to regard sloughing as unimportant in these cases, which are really benefited by the method. In amputations and other operations which can be completed in a few minutes, I cannot recognize the necessity for departing from the old and efficient method of controlling hæmorrhage by direct arterial compression. Hence, I question the importance of a contingency which can be avoided. In mili-

tary and provincial practice, where, as already remarked, the surgeon must amputate without sufficient skilled assistants, he is free to select between the immediate danger of hæmorrhage and the remote disadvantage of sloughing of the flaps; observations are as yet deficient as to the constitutional effects of the expedient. The quantity of blood lost during operation is frequently a most desirable antiphlogistic. By Esmarch's method, for good or for evil, this is prevented, and severe inflammation may follow the operation; however, in such cases the surgeon can conveniently resort to phlebotomy, or other antiphlogistic treatment, as suggested by his judgment. Again, in disease or predisposition to congestion in any of the important viscera, as the lungs or brain, we may well hesitate before we throw the entire amount of blood contained in a limb, either temporarily or permanently, into the general circulation. We must also remember the possibility that this quantity of blood may embarrass the pulmonary circulation and aid in developing the fatal effects of the anæsthetic. These are points which can only be settled by experience, and they appear to me to be worthy of the consideration of the profession.

Case I.—*Necrosis of the Entire Tibia.*—Thomas ——, æt. 17, disease of eight months duration. Commenced with violent pain about the tuberosity of the tibia. His leg became flexed, and an abscess formed which pointed and burst about the tenth day. A series of these occurred along the front of the leg. Admitted November 10th, with symptoms indicating necrosis of the entire shaft of the bone. Operation on November 15th. Commenced by an incision reaching nearly from the knee to the ankle. The new osseous case was three-quarters of an inch thick, and was opened with a chisel, at the expense of much labor, to the same extent as the primary incision. The bloodlessness of the operation may be estimated by the fact that when the sequestra were removed the cavity did not contain a drop of blood. The case is progressing most favorably, and the cavity is lined by healthy granulations. The edges of the incision sloughed in their entire extent, but only to a limited degree.

Case II.—*Necrosis of Lower End of Tibia.*—Joseph ——, æt. 15, disease of two years duration. Commenced by a pain in the ankle, and an abscess formed above the articulation. The bone became expanded at its lower third, and a succession of abscesses formed on the anterior and inner surface of the leg. Admitted October 29th, with symptoms of necrosis of the lower end of the tibia. After some general treatment the operation was performed on November 13th. A portion of expanded bone was chiseled out, and a few small sequestra were removed from the centre of the mass. This case also progresses favorably. Some smart hæmorrhage occurred about two hours after operation, but it was easily suppressed by the application of ice.

CASE III.—*Necrosis of the Shaft of the Humerus.*—Margaret ——, æt. 15, disease of eight months duration. Gives the history of rheumetic fever, for which she received hospital treatment; abscesses formed at various points along the arm; admitted November 20th, and operation on the 25th of November. A long incision on the outer side of the arm, and the new osseous case, which was badly developed, was cleared of the sequestra. The special interest in this operation is owing to the application of the tubing above the arm, or round the clavicle and the neck of the scapula. Notwithstanding the protection which the vessels receive from the bones in the neighborhood of the last stage of the subclavian artery, this operation was as bloodless as any of the preceding ones.

CASE IV.—*Anchylosis of Elbow Joint; Resection.*—Anne ——, æt. 23, disease of four years duration, resulting from an injury to the joint. Admitted November 28th. Operation, sub-periosteal (November 29th), performed by means of an external incision. The osseous mass was cut through with a forceps, the end of the bone turned out and sawn off. The case progresses most favorably. The wound was dressed before the tubing was removed, and during, or after the operation, or at any time, not a single drop of blood was visible.—*Medical Press and Circular.*

A Case of Hæmorrhage from the Internal Carotid Artery treated successfully by the Ligature. By H. B. SANDS, M.D., Surgeon to the Bellevue and Roosevelt Hospitals, etc.

The following case is believed to be unique, and to constitute an important contribution to the annals of operative surgery.

On October 22, 1872, I performed disarticulation of the left half of the lower jaw, on account of a malignant scirrhous tumor, occurring in a gentleman, fifty-three years of age, and developed chiefly on the inner aspect of the ramus and body of the bone, near the angle. The usual incision having been made, the jaw was divided on the left of the median line, through the socket of the corresponding canine tooth. The bone was then forcibly everted, while I quickly severed, by means of a pair of stout scissors, the soft parts covering the internal surface of the tumor, and then completed the disarticulation. Copious arterial hæmorrhage, checked temporarily by the pressure of the left forefinger, attended this manœuvre, and, on subsequent examination of the tumor, there were found running through it an inch of the trunk of the external carotid artery, and portions of about equal length of the digastric muscle and the hypoglossal nerve. These

parts were necessarily divided and removed, together with the tumor. The external carotid, together with some smaller arterial vessels, having been tied, I was about to close the wound, when free venous bleeding took place from a small opening that I had accidentally made in the internal jugular vein. After some reflection as to the best course to pursue, I seized the margins of the wound in the vein, and applied a lateral ligature, not occluding the calibre of the vessel. The wound was then closed by sutures, except at its middle part, where an opening, half an inch long, was left for the exit of the ligatures. During the operation it was noticed that the upper part of the common carotid, and the internal carotid artery, from its origin to the base of the skull, were exposed, and could be seen pulsating at the bottom of the wound.

On the tenth day after the operation, at ten o'clock in the evening, while my partner, Dr. Curtis, was engaged in cleaning the wound, a sudden escape of blood took place, both from the external opening and through the mouth. Dr. Curtis at once compressed the common carotid with the left hand, and ripping open the upper end of the original incision, passed in two fingers of the right hand, and made pressure over the line of the internal carotid. The hæmorrhage ceased at once, about two ounces of blood having been lost, whose color gave no certain indication of the source of the bleeding. Pressure was successfully maintained until my arrival, at the end of about half an hour. It was then found that one of the upper two fingers covered the bleeding point, which was evidently above the carotid bifurcation, and Dr. Curtis was relieved by my pupil, Mr. Shafter. The ligatures were then examined, and that on the internal jugular vein identified and found to be attached far below the bleeding point. No ligature could be identified as belonging to the external carotid artery. After looking at the ligatures, I, without giving ether, prolonged the opening in the neck downward along the anterior edge of the sterno-mastoid muscle, and endeavored to reach the common carotid high up. Owing to the altered condition of the parts, this proved impracticable; so, having divided the omo-hyoid muscle, I exposed the artery just below it, where the tissues were normal, and passed, without tightening it, a ligature.

The common carotid was then compressed between the ligature and the finger, and pressure relaxed upon the bleeding point. A very vigorous spurt of blood followed, and pressure was resumed.

An examination of the surface, immediately above the seat of hæmorrhage, revealed a very soft pulsation, just beneath the granulations along the line of the internal carotid. The latter vessel I directed Dr. Curtis to dissect, while I controlled the bleeding. The internal carotid was exposed by scratching through the condensed tissues with the point of a grooved steel director; a ligature was passed and was immediately tightened, as

was just afterward the one encircling the common carotid. I then lifted my finger from the bleeding point, and no gush followed, but a bleeding continuous in character, and small in amount. This was easily controlled by pressure just below the opening, and for the first time the exact seat and nature of the latter were completely open to inspection. The blood was found to come from a small, circular, clean-cut ulceration in the side of the internal carotid artery, situated an inch below the upper ligature, and the same distance above the upper border of the thyroid cartilage. Through this opening, the white and glistening surface of the inner coat of the opposite side of the arterial wall was distinctly visible. After ascertaining the opening to be in the side of the internal carotid, I readily exposed this vessel two or three lines below the opening, and applied a ligature, thus cutting off the source of the trifling hæmorrhage which had persisted after the tightening of the first two ligatures. This hæmorrhage must have been caused by the recurrent circulation through branches springing from the stump of the external carotid. The lower portion of the wound was then closed by a few silk sutures, and the rest lightly filled with dry lint.

The operation, which lasted about two hours, was wonderfully well borne, the patient making no complaint. He lost altogether, both during the operation and the antecedent hæmorrhage, not more than four or five ounces of blood, and the pulse continued firm throughout. Milk and iced brandy were administered through the night, and the patient obtained sleep without anodynes.

The subsequent progress of the case was eminently satisfactory. The two ligatures on the internal carotid separated on the ninth day, that of the common carotid on the fourteenth day, and that of the internal jugular vein on the seventeenth day after their application. The upper ligature on the internal carotid had in its noose an offensive white slough of the artery, three-eighths of an inch long, and another hæmorrhage was feared. None occurred, however, and the patient recovered completely without any further unpleasant symptoms.

Remarks.—Lesions of the internal carotid are usually so rapidly fatal, that no opportunity is afforded for surgical treatment. But, even when the surgeon interferes, success is not generally attainable, and, so far as I have been able to ascertain, there is only one other example of recovery recorded besides the one herewith reported. This case occurred in 1807, in the practice of Dr. Twitchell, of Keene, N. H., and, in many respects, it resembled my own. The hæmorrhage was secondary, and took place, ten days after a gunshot injury, while Dr. Twitchell was in the patient's house. He applied a ligature on the cardiac side of the opening in the wall of the internal carotid, but was obliged to

check the recurrent hæmorrhage by means of a graduated compress, as the opening was in that part of the artery which lies just beneath the base of the skull.

From various sources I have collected the following instances of hæmorrhage from the internal carotid. Some were treated, and others were not, while all terminated fatally:

1. A hunter received a penetrating bullet-wound of the face. Hæmorrhage occurred on the third day, after the administration of an emetic. Death took place on the fourth day, during an attempt to tie the common carotid. At the autopsy, the ball was found lying behind this vessel, opposite the bifurcation. The internal carotid showed a longitudinal rent one-fourth of an inch in length.

2. Abernethy tied the common carotid for hæmorrhage from a wound of the neck inflicted by a cow's horn. The patient died thirty hours after the operation, with symptoms of hemiplegia. At the *post-mortem* operation, the facial, lingual, superior thyroid, and internal carotid arteries were found torn.

3. Langenbeck tied the common carotid for hæmorrhage from the internal carotid, caused by the ulceration of an epithelian cancer. Death occurred soon after the operation, and an ulcer, not larger than the head of a pin, was found in the coats of the internal carotid.

4. A. Smith ligated the common carotid for hæmorrhage from the internal carotid, caused by a phagedenic ulcer of the tonsil. The patient died in six hours.

5. In the "Medical and Surgical History of the War of the Rebellion," a case is reported in which the common carotid was tied for hæmorrhage from the internal carotid, caused by a gunshot-wound. The hæmorrhage recurred and carried off the patient.

6. Baizeau tied the common carotid for hæmorrhage from the internal carotid, caused by disease of the ear. The bleeding was not arrested, and proved fatal on the third day. At the autopsy an opening was found in the internal carotid, produced by caries of the walls of the tympanum.

7. Broca performed an operation, like the one last described, and with a fatal result due to hæmorrhage.

8. Billroth, in a case of hæmorrhage from the right ear, due to ulceration of the internal carotid, tied the right common carotid, and, a fortnight subsequently, the left common carotid. Death from hæmorrhage occurred two days after the last operation.

9. Dupuytren reports the case of a man who received a perforating bullet-wound of the neck, at the level of the inferior maxilla. Hæmorrhage, which pressure failed to arrest, occurred on the tenth day, and proved fatal on the twelfth day. At the autopsy a wound, one-half an inch in length, was discovered in the internal carotid, two inches above its point of origin.

10. Heyfelder relates that a soldier received a penetrating wound of the left side of the neck, and died of hæmorrhage eight hours after the injury. Ice-bags were the only means employed to check the bleeding. The internal carotid was found to be almost completely divided, three and a half lines above its origin.

11. Beclard states that a traveling charlatan wounded the internal carotid while attempting to excise an enlarged tonsil. The operator fled, and Beclard was summoned just in time to see the patient die from hæmorrhage. A wound of the internal carotid was found *post-mortem*.

In some of the cases above mentioned, namely, those in which the hæmorrhage was due to disease of the petrous bone, the application of a ligature on the distal side of the arterial lesion was impossible, and the case that I have reported is the only one, so far as I am aware, in which a lesion of the internal carotid has been treated by the application of a double ligature to the injured vessel, one on the proximal, and the other on the distal side of the bleeding point. The result affords additional evidence of the soundness of the rule laid down by Mr. Guthrie—a rule which is too often neglected, as is shown by the surgical reports of the late civil war, even at the present day. It is not, perhaps, difficult to explain why a surgical maxim, so generally admitted to be binding, should be so often disregarded. The application of a double ligature to the bleeding vessel is simple in principle, but generally difficult and sometimes impossible in practice. The deep situation of the bleeding vessel, its relation to other important parts, and, in cases of secondary hæmorrhage, the infiltration of the surrounding textures with inflammatory products, offer serious, and sometimes insuperable obstacles to the application of a double ligature near the opening in the arterial walls. In these circumstances, the temptation to apply a simple ligature to the main trunk is very great, and experience shows that this operation, either alone, or, as in Dr. Twitchell's case, in conjunction with pressure, may sometimes insure the desired result. Yet success in such an operation can never be expected, and the surgeon should in no case perform it except as a last resort, and after an attempt has been fairly made to apply a double ligature according to the rule admitted by nearly every surgical writer as imperative. In the present case it is plainly evident that, unless the ligature had been applied above as well as below the bleeding point, death from hæmorrhage would have rapidly and inevitably followed, as it was noticed that the simple interruption of the circulation through the common carotid produced no appreciable diminution in the violence of the bleeding, which, however, ceased almost entirely when a ligature was applied to the internal carotid beneath the base of the skull. The slight recurrent hæmorrhage still going on was controlled by the third ligature, placed just be-

low the bleeding point. This ligature I should have applied at first, instead of tying the primitive carotid, had the state of the parts rendered the requisite dissection practicable.

Finally, it may be interesting to note the success which attended the application of a lateral ligature to the internal jugular vein. In spite of the weight of authority in favor of treating wounds of large veins by the use of a double ligature, completely surrounding the vein above and below the bleeding point, I am strongly inclined, if the wound be small, to trust to a single ligature, applied laterally, so as to include merely the edges of the wound, and not to interrupt the current of blood through the injured vessel. In case the wound were of large size, however, I should then regard the complete ligature of the vein as affording the best guarantee of success.—*New York Med. Journal.*

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*The Physiological Influence of Alcohol.**

This pamphlet is the substance of a paper read by Dr. Edmunds at a meeting of the British Medical Association in August last, and is full of interest, since the question of the use of alcohol is certainly one of the most important of the day. Dr. Edmunds, indeed, states that some one hundred and twenty millions are annually consumed in this country on alcoholic drinks.

Dr. Edmunds shows that pure alcohol is a powerful caustic, and that it does not answer the definition of food, not being innocuous to the system, or capable of entering into the construction of any living tissue. Cane sugar yields about fifty-one per cent. of alcohol, and the thermic power of a pound of sugar is equivalent to that of the alcohol contained in a pound of brandy; but sugar is completely oxydized in the system, whilst a very great portion of all the alcohol taken into the economy is excreted unchanged in the breath and urine.

Dr. Edmunds upon this point cites the opinion of Professor Frankland, that conclusive evidence is still wanting as to the oxydization of alcohol in the system; but there appears to be considerable probability that some at least is oxydized. Hence the food value of alcohol is truly very small.

In large doses, alcohol is a powerful narcotic, and more persons are killed by it than by all other poisons taken together. According to Dr. Edmunds, alcohol, chloroform, opium, and intense cold seem to lessen vital activity by retarding oxydation in the body,

* "The Physiological Influence of Alcohol." By James Edmunds, M.D. Tweedie, Strand. 1874.

just as the flame of a candle burns more dimly when the vapor of alcohol surrounds it.

It is said that alcohol in small doses increases the activity of the heart's action, and that it should therefore be given whenever the pulse is feeble. Dr. Edmunds submits that in a soundly organized animal the power exercised by the heart is an exact measure of the difficulty of keeping the circulation going. The real cause of the capillary current in animals is the same as that which moves the sap in plants, *i. e.*, the vital activity of the tissues themselves. Whilst, then, the sympathetic nerve is duly sensitive, reflex action urges on the heart to get rid of the blood, and thus keeps up a distended state of the arteriales, from which the tissues draw their blood supply. The real pace of the circulation is determined by the general molecular activity of the tissues, and not by the action of the heart.

In feeble and inactive states of the system, the heart should work very gently; and the administration of stimulants in a depressed or aged system, with a view to urge on the movements of the heart, is most irrational.

As a consequence of these views, Dr. Edmunds holds that the true and only object for which alcohol should be used as a medicine, should be in cases where convulsions are likely to supervene in children, or for retarding over-action in some stages of general disease, and he ends with drawing the following conclusions:

1. That all alcoholic beverages are ordinarily taken for the alcohol they contain, and would not be taken were the alcohol abstracted.

2. That the non-alcoholic constituents of these beverages may all be obtained in their most advantageous conditions, and at a fractional cost, in common-place articles of food.

3. That alcohol, if a food, is the most absorbable and rapidly diffusing food substance with which we are acquainted, and one, moreover, which is utilizable without effort from the digestive organs, but that in these respects an equal quantity of grape sugar would have nearly the same advantages.

4. That the food value of alcohol cannot exceed that of the sugar from which it is manufactured, and therefore, to use it as an ordinary article of food, must, at the present relative prices of sugar and alcohol, be a vast monetary extravagance.

5. That a considerable portion of the alcohol is excreted from the body unchanged, and therefore, the use of alcoholic beverages must involve fruitless wear and tear of the excretory organs, as well as a total waste of the excreted alcohol.

6. That alcohol, if a food, stands apart from all other foods in its want of innocuousness in its relations to the tissues.

7. That a large proportion of the degenerative changes which lead to disease and early death, grow out of the use of alcoholic beverages.

8. That the presence of alcohol in the blood retards the oxydation of effete matters, and gives a putrescent tendency to the system.

9. That, in large doses, alcohol is a substance which narcotizes all animal tissues, and invariably destroys life if administered in sufficient doses, and that the so-called stimulating effects of alcohol in small doses are really finer shades of narcotization, disguised by efforts on the part of the system to excrete an injurious substance and to compensate for its disturbing influence.

With many of the conclusions come to by Dr. Edmunds we heartily concur; and as a general rule, we think that the mass of medical men would be inclined to counsel mankind to lay aside the use of alcohol and other narcotics like tobacco, and confine itself to simple foods and drinks. Men and women drink alcohol because they like the feelings of narcotism; but sooner or later all persons who use much alcohol begin to feel its poisonous effects in impaired energy and deterioration of some of the muscles of the body necessary to the carrying on of life.

Alcohol, of course, should never be used by healthy men, women or children. In disease we come to some other questions; and must leave the power of alcohol in disease to be treated more fully at another time. Suffice it to say, we believe that the alcoholic days of Todd and of his school are at an end, and we trust that, like bleeding and over-purgation, over-alcoholization may never again be in vogue.

Dr. Edmunds belongs to a society of philanthropists who are truly of immense utility in this country and at this moment. Owing to the many discoveries in the useful arts made during this century, we have in this land acquired sudden and unexampled powers of acquiring wealth; but it is by no means so clear that the way in which that wealth is now being spent conduces to the happiness of the nation. On all sides we see disease and deterioration of morals, the result of indulgence in alcohol and tobacco; and the physician of our time, if he possess any sympathy with his kind, will find no surer road to improve the happiness of the race, than by lessening the fatal proclivity of the masses toward alcohol. All those who wish to know the truth of this matter should read this little pamphlet, which is scientific, well composed, and what is more, *true.—Med. Press and Circular.*

Editors' Book Table.

[NOTE.—All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

Homocultology. An Essay. Published for the Author. For sale at the Progressive Publishing House, No. 24 Fourth Street, New York, and by all Booksellers.

The anonymous author may cry Eureka! he has found not only an idea, but a name for it; a panacea for "the thousand ills that human flesh is heir to;" a remedy, essentially radical, against the world, the flesh and the devil.

Arguing from the experience and practice of stock breeders, he proposes to improve the human race, by the elimination of all either physically, mentally or morally imperfect, by castration.

According to this long-eared philanthropist, convicted criminals, imperfectly developed children, the victims of disease, whether mental or physical, are all to be castrated, in order that the human race may be brought up by means of this process of elimination to the standard of "Homer, Byron, Socrates, Napoleon, Webster, Dickens, Dumas," etc. The author has been somewhat unfortunate in the selection of his models, we think, as some of the generations yet unborn might object to being cultivated up to blindness, lameness, cancer, etc., etc.

The thoughtful reader might like to be informed—the advantages of the system being conceded—by whom it was to be put into, and maintained in, practice. This is only suggested inferentially, on page 17, upon which the author condemns Mr. Peabody for the wrong done to *us*, in giving millions of pounds sterling to paupers, as, therewith being fed, they may "before long out-vote *us*."

We, then, are to be the executioners!

Further, we are told, "It will hardly be expected that (sic) in a preparatory discourse upon this great question, that (sic) a convincing and complete argument could be made. But little more will be attempted, therefore, than the announcement of the positions that will be hereafter maintained.

"1. Like begets like—the good and the bad elements of humanity repeat themselves.

"2. Improvement can only be made by breeding, by careful selection, purity of blood, stock, ancestry, and the philosophy of procreation.

"3. The fountains of mental, moral and physical diseases must be closed; there must be no duplicates of physical, mental or moral incurables in the next generation."

In reference to the first proposition, with a full appreciation of the character of the "Essay" before us, we can only say "'tis true, 'tis pity; and pity 'tis, 'tis true."

The second is scarcely original, except "the philosophy of procreation," which we suppose means an appreciation of the advantages of castration.

It is to be hoped that the author will demonstrate the practicability of his third proposition by a personal application of his system, or accomplish it still more effectually *more Japonico*, by hari-kari. H.

Expert Testimony. By THAD. M. STEVENS, M.D. From the *Indiana Journal of Medicine* for October, 1873.

The objective point of this essay appears to be the appointment of State, or District, Boards of Experts, to testify concerning medico-legal questions, and also to secure their adequate compensation.

We say, appears to be, as the paper is somewhat difficult to comprehend, by reason of the singular obscurity of its style, and the disregard of orthography, etymology and syntax manifested by the writer, who has "*thought* it best to offer some *thoughts*"; who talks of "*Socialogy*," and says that "some notorious *examples* of the incompetency of medical testimony *exists*"; that "the most thorough and conclusive chemical examination could not make *headway* or *dispell* the prejudice engendered by such faulty testimony"; who prescribes "one-fifth or one-fourth gr. of morphine and bromide *potasium*," leaving us somewhat doubtful as to drug and dose—but tells us that "the *results* of the post mortem *was* of great importance." Further, we learn that "there is a certain *tactus erudicus*," etc.; and later, that "it becomes us all to look after this *phrase* of the matter," and "*apropo* of this"—

Since "we must keep in mind the difference between *common* witnesses and experts," we are puzzled about the status of the writer; is he an expert? he certainly is a most uncommon witness.

H.

An Essay on the Principles of Mental Hygiene. By D. A. GORTON, M.D. Philadelphia: J. B. Lippincott & Co. 1873.

Says our author, in his preface, "He who reads the following pages with the attention which the importance of the subject demands, cannot fail to remark the number of quotations introduced from the writings of distinguished savants, past and present. To my mind, that is the best feature of my volume." An honest confession, and certainly true; they constitute not only the best, but by far the *larger* portion of the volume; indeed, without these quotations there would have been left but the cement, serving to join, not unite, the various pieces of this literary mosaic, and possessing about the same relative value thereto as the paste in which they are imbedded to the brilliant mosaics of the Vatican.

In the concluding paragraph of the preface, the author expresses his deep sensibility to "the shortcomings and imperfections of the volume," and also the consciousness "of having done the best I could with the leisure and materials at my command."

In regard to which we must express our conviction that the obligation to publish a book rests upon no man, and least of all when he has neither time nor material for his work.

The body of the volume is divided into six chapters, from which we, following the author's example, will make a few quotations. Referring to the mental influence of physical agents, he says: "An unsightly physical deformity represents so much morbid force spent in the direction of the least harm to the mental character of the individual. A goitre, for example, may, and I believe often does, hold in its cells the condensed essence of a mania," etc., etc. Now, if it be true, as the author has said on the preceding page, that "the phenomena of nature proceed entirely from legitimate antecedents," we fail to appreciate his *morbid force*, and if "an unsightly physical deformity represents so much morbid force spent in the direction of the least harm to the mental character of the individual," how does it happen that all human experience has taught the constant association of idiocy and physical deform-

ity? and where the consistency of the Horatian maxim that adorns his title page—"*Sana mens in corpore sano*"? (a false construction.)

In the fourth chapter, on moral and religious influences, the author tells us, "Long ago, in our youthful days, we 'experienced religion,'" etc., and a little further on he says, "true religion is not in the market, and cannot be bought and sold, bartered for *nor begged* with a *prayer*"; from which we may form some idea of the character of that religion which he "experienced"; in further witness to which hear him—"While, therefore, fear, ignorance and credulity are the foundation of superstition, in its modern acceptation, superstition and theology are the foundation of religion;" probably, of that which he "experienced," minus the theology.

Again, he says, "The Spiritual Head of the Church assured his followers from time to time that the secret of so-called miracle-working was credulity: 'And Jesus said unto them, *Believe* ye that I am able to do this? They said unto him, Yea, Lord. Then touched he their eyes, saying, According to your *faith* be it unto you;' and to the woman who had been ill for twelve years, and who was finally cured by a single touch of his garment, he said: 'Daughter, be of good comfort; thy faith hath made thee whole,' etc., etc. Such is the foundation of the absurd pretensions of all the great religions of the world; witchcraft; fortune-telling; magnetism; medical charlatanry; and also of other curious psychological phenomena, of which the world is so full to-day."

Concerning marriage, the author, quoting Mill—an authority hardly orthodox upon this subject—says, "it is hardly possible for one who is in these bonds to attain exalted virtue," or "to retain it if once acquired." And again, "It would be a very unhappy alternative, to be sure; but personal character of a high order would more than compensate one for the conventional odium of bastardy." To which we can only reply, chacun a son gout. "Bastards, while they are conceived in sin, are generally bred and reared in virtue." How this singular inconsistency occurs we are not informed. But basta! enough! to review the book upon its own merits is difficult, as there is very little of it, and that little has very little merit. The author is evidently a reader, extensive, certainly, but hardly comprehensive, who has served up a sort of literary ragout in which the multiplicity of imported flavors are

scarcely sufficient to disguise the watery decoction of false philosophy, infidelity and blasphemy in which they are suspended.

H.

A Handbook of the Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M.D., B.Sc., M.R.C.P., etc., etc. Philadelphia: Lindsay & Blakiston. 1874.

There will be very few of our readers, we think, who, having read Dr. Roberts' "Handbook," will be willing to spare it for any length of time from their office tables. If there is a book in the whole of medical literature in which so much is said in so few words, it has never come within our reach. So clear, terse and pointed is the style, so accurate the diction, and so varied the matter of this book, that it is almost a dictionary of practical medicine.

We have examined it carefully for defects, and confess that the search was fruitless. We have looked for new remedies, and found all that we sought and more that we wot not of. We have sought for the results of recent investigations, and found that the author had anticipated our search.

Without going into a detailed analysis of the work, we can conscientiously say that we scarcely know one destined to prove of more practical utility to students and general practitioners, whose studies it will greatly facilitate, or to the expert, even, who will find it a most valuable reminder in any department of our art. It is emphatically a book of ideas rather than words, and is moreover intensely practical. After having found it necessary to condemn certain volumes so earnestly, it is exceedingly gratifying to turn to one like this which we can most heartily praise. H.

Mind and Matter; or, Psychological Inquiries, in a series of Essays, intended to illustrate the Mutual Relations of the Physical Organization and the Mental Faculties. By SIR BENJAMIN BRODIE, Bart., D.C.L., Vice-President of the Royal Society. With additional notes by an American Editor. New York: William Wood & Co., 27 Great Jones St. 1873.

The admirable dialogues of Eubulus, Crites and Ergates are so well known to American students through the edition already published by the Messrs. Wood & Co., that criticism seems superfluous.

We are glad, hovever, to welcome this new edition, as it will serve to attract the attention of the younger members of the medical profession to a work which cannot fail to benefit its careful reader. H.

An Introduction to Practical Chemistry. By JNO. E. BOWMAN, F.C.S., Late Professor of Practical Chemistry in Kings College, London. Edited by CHARLES L. BLOXAM, F.C.S., etc., etc. Sixth American, from the sixth and revised English edition. Philadelphia: Henry C. Lea. 1873.

A book which has passed through six editions on each side of the ocean needs no certificate of popularity. One who studies it will perceive that its popularity is based upon its intrinsic merit. Written originally as a text book for the chemistry class of King's College, London, it was adapted especially to the wants of those just entering upon a course of chemical studies, but will be found sufficiently comprehensive to fulfill the requirements of the large majority of general practitioners, whose chemical acquirements rarely extend beyond its limits. It possesses an especial advantage in its small size, the author having been, seemingly, careful to avoid the dilution of his matter, and the expansion of its bulk by useless verbiage, from which it is singularly free. The instructions are clear and explicit, and the illustrations which accompany them well designed and executed. H.

Lectures on Diseases and Injuries of the Ear. Delivered at St. George's Hospital. By W. B. DALBY, F.R.C.S., M.B., Cantab., Aural Surgeon to the Hospital. With twenty-one illustrations. Philadelphia: Lindsay & Blakiston. 1873.

These lectures constitute a useful little manual of some of the diseases and injuries of the ear, more especially of the external and middle ear. The work lacks order, somewhat, the subjects being considered rather from basis of the relative anatomy of the organ. It is scarcely adapted to students, as it takes for granted the possession by the reader of a knowledge of the anatomy and physiology of the ear, as without such knowledge he would be greatly embarrassed in the study of the work.

To practitioners, somewhat familiar with the mechanism and functions of the auditory apparatus, the book will prove serviceable

for reference, the subjects which it comprises being presented clearly and practically, by an author thoroughly familiar therewith. The concluding pages are occupied by a description of the different methods of educating deaf mutes, by "Dactylology," and by "Lip-Reading," which possesses much interest. H.

The Leprous Diseases of the Eye. With six colored plates. By Dr. OLE B. BULL, Member of the Norwegian Medical Society and Private Docent in Ophthalmology at Christiana; and Dr. G. A. HANSEN, Member of the Norwegian Medical Society and Physician to the Leprosy Hospital at Bergen. Christiana: Published by Albert Cammermyer. 1873.

The above treatise possesses much interest for ophthalmologists, if the authors' expressed opinion be correct, "that there is no disease which so frequently gives rise to disorders of the eye, as leprosy does," and by "leprosy" they designate elephantiasis, or lepra tuberculosa, and eleps, or lepra levis. The fact, to which they allude, that the consideration of this class of diseases has been omitted from ophthalmological literature, seems opposed to their opinion.

However this may be regarding the world at large, it is doubtless true in Norway, where leprosy prevails so extensively, as the excellent descriptions of the different forms of the disease, and the thorough familiarity with them, displayed by the authors, could only result from the patient study of a large number of cases, and this would be possible only where the disease was of frequent occurrence. It is quite possible, moreover, that this disease may be imported into our own country, more especially the north-western portions of it, which are becoming the homes of large numbers of Norwegian immigrants, and may become indigenous amongst them.

The style of the work is excellent, and although the translator is not referred to, its linguistic accuracy proves that this portion of the work has been accomplished by one equally expert in English as in Norwegian. H.

BOOKS, PERIODICALS AND PAMPHLETS

RECEIVED SINCE PUBLICATION OF LAST NO.

Philadelphia Medical Times—Dec. 13, 20, 27, 1873.
Medical Record—New York, Dec. 15, 1873.

The Medical Press and Circular—London, Nov. 26, 1873.

The Clinic—Cincinnati, Dec. 20 and 27, 1873.

The London Lancet—Dec., 1873.

The Richmond and Louisville Medical Journal—Dec., 1873.

The Boston Medical and Surgical Journal—Dec., 1873.

The Cincinnati Lancet and Observer—Dec., 1873.

The Medical and Surgical Reporter—Philadelphia, Dec. 13, 20, 27, 1873, and Jan. 3, 1874.

Atlanta Medical and Surgical Journal—Nov. and Dec., 1873.

The Pacific Medical and Surgical Journal—Dec., 1873.

The Indiana Journal of Medicine—Dec., 1873.

The Virginia Clinical Record—Dec., 1873.

The Dental Cosmos—Philadelphia, Dec., 1873.

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The Medical Herald—Leavenworth, Kansas, Dec., 1873.

The Leprous Diseases of the Eye. With six colored plates. By DR. O. B. BULL and DR. G. A. HANSEN, Members of the Norwegian Medical Society, etc., etc., Christiana and Bergen. Christiana: Albert Cammermeyer. 1873.

The Physician and Surgeon—Baltimore, Dec., 1873.

The Medical Examiner—Chicago, Dec. 15, 1873, and Jan. 1, 1874.

Report of the Health Officer of the City and County of San Francisco, Cal., for fiscal year ending June 30, 1873.

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Le Progres Medical. Paris, No. 16, 17, 18, 19, 20, 21, 1873.

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Expert Testimony.

Evidences of Life in the Newly Delivered Child. By WM. B. ATKINSON.

Medical Examiner—Jan. 1, 1874.

Medical Herald—Leavenworth, Kansas, Jan., 1874.

Philadelphia Medical Times—Jan. 3, 1874.

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Granular Cell found in Ovarian Fluid. THOS. M. DRYSDALE Collins, Publisher, Phila.

Toner Lectures. Lecture 1: The Structure of Cancerous Tumors, etc. J. J. WOODWARD, M.D., U. S. A.
Nebraska State Society, Proceedings of, 1873.
Arkansas Medical Association, Proceedings of, 1873.
Washington Territory, Medical Society of, Proceedings of, 1873.
St. Louis Medical and Surgical Journal—Jan., 1874.
Canada Medical and Surgical Journal—Dec., 1873.
Kansas City Medical Journal—Dec., 1873.
Clinic—Jan. 3, 1874.
Practitioner—Dec., 1873.
London Medical Record—Nov., 1873.

ANNOUNCEMENTS.

Geo. P. Putnam's Sons, New York, have in preparation, a translation by Doctors M. D. Mann and S. B. St. John, of a recent work by Professor Ludwig Buhl, of Munich, on Inflammation of the Lungs, Tuberculosis, and Consumption.

Dr. Geo. M. Beard, of New York, proposes to found "a journal devoted to the Special Departments of Electricity, in its relations to Medicine and Diseases of the Nervous System," under the title "Archives of Electrology and Neurology," to be issued semi-annually, commencing early in 1874.

Doctors Jewell and Bannister, of Evanston, announce their intention to issue early in the present year, a quarterly, to be entitled "The Chicago Journal of Nervous and Mental Disease." Its scope is designed to be comprehensive, and its range extensive. It has our best wishes for its success and prosperity.

Messrs. Keen and Cooke have now in press a translation of Dr. Arthius' work, on the Application of Static Electricity to the Treatment of Nervous and Rheumatic Affections, by J. H. Etheridge, Professor of Materia Medica Rush Medical College. The original work possesses much interest, which will in no wise be diminished in its translation by the facile pen of so accomplished a scholar as Prof. Etheridge.

Editorial.

Are Lunatics Criminals?

In the November number of the JOURNAL we took occasion, under the above caption, to call the attention of the County Commissioners to the urgent necessity of providing some suitable place or places for the safe keeping of lunatics pending the adjudication of their status, and previous to their transmission to an asylum by order of the County Court. Attention was directed to the great abuse, at present existing, of subjecting these unfortunate beings to incarceration as felons with felons, surrounded by the degrading and humiliating associations of the police station or the jail.

Another phase of the same subject has just been presented in the report of the Superintendent of the House of Correction and that of the City Physician included therein, published *in extenso* in the *Chicago Times* of January 15th; a thoughtful perusal of which again suggests the question, Are lunatics criminals? The phase of the subject comprehended by the question is a different one from that already presented. In that, we called attention to the outrage done to persons recognized as innocent, and yet treated as criminals, because they were so unfortunate as to be insane; in this, we would indicate that still more unfortunate class recognized as criminals and treated as such, who have helplessly drifted into crime, many of whom would even fulfill the old legal definition of insanity, for they know not right from wrong.

The opportunities for observation of this class, enjoyed by the two gentlemen to whose reports we have already referred, are ample to authorize them to speak *ex cathedra* upon the subject of the necessity which exists for distinguishing these helplessly criminal beings from those who are criminal maliciously. Their crimes are not so much voluntary acts as they are the necessary consequences of the reaction of their vicious surroundings upon organizations already degraded. The City Physician evidently comprehends the subject justly and thoroughly. Would it not be well to enlarge the scope of his duties to such an extent as to constitute him the municipal expert before the Magistrates' Courts,

to aid those functionaries in discriminating correctly between willful criminals and helpless offenders, to the end that a classification might be made in their disposition, and the ends of public justice subserved, without involving a violation of the instincts of humanity or the teachings of philanthropy? The House of Correction might thus become a reformatory instead of a deformatory. H.

The Board of Health.

After having, on various occasions, animadverted upon the delinquencies of this soulless body, we did not expect to find ourselves, at this late day, arrayed among the ranks of its defenders. But in truth, while we can bear to see attacks made upon anything that has life, and the power to kick back, we can only regret the cruelty which abuses the dead. What has the Board of Health done to the new Mayor that he should vent his spite upon it so cruelly? Or, has he been refreshing his recollections of Æsop's fables, and proposes to play Jupiter and the Frogs? If so, give us king Stork, Oh, Jupiter! instead of king Log. H.

The Premonitory Symptoms of Insanity,

Is the title of an article published in the *Cincinnati Lancet and Observer*, of January, 1874, which bore so striking a resemblance to a paper published in this journal, of November, 1873, as to induce us to compare them. The only difference perceptible was a slight one between the name of the author appended to the *Lancet and Observer* article, and that subscribed to the original manuscript in our possession. It is true that there is no copyright in such matters; but still, gratitude, (not to speak of another still more necessary virtue,) demands a recognition of the sources of our benefits. H.

Loot.

Salivation.

Dr. Ebstein reports in the Berliner Wochen Schrift, 1873, No. 25, experiments demonstrating the inhibitory action of atropine upon the chorda tympani nerve, practically applied in arresting salivation, which he believes to be due to irritation of this nerve. —*Practitioner.*

Treatment of Carcinoma Uteri.

The *Practitioner* quotes from Sitz-Berder physic-med. Soc. zu Erlangen, 1873, R. Schroder's alleged successful treatment of this formidable malady by the application of the alcoholic solution of bromine (bromine one, alcohol five parts) to the seat of disease, after having removed all of the disease that was recognizable, (how, is not stated), and subsequently having applied the actual cautery deeply. Two cases of permanent cures are claimed.

Abortion.

Dr. Pallen (St. Louis Med. and Surg. Journal, October, 1873), advises the induction of abortion to relieve excessive vomiting in pregnancy. He has performed it five times, under certain conditions, and *the patients all died.* Such an experience must be a pleasing retrospect in a physician's life.

Gastralgia.

1. Ice bags to epigastrium for ten minutes, morning and evening. 2. Mustard poultice to same locality after ice. 3. Spoonful of shredded ice with sugar, morning and evening, every five minutes for an hour.—M. JONLIN, in La France Medicale.

Surgeon General Barnes.

The French Academy of Medicine has honored itself by electing Surgeon General Barnes a corresponding member by an almost unanimous vote.—*Phila. Med. Times.*

Transactions of the American Medical Association.

The Philadelphia Med. Times terms the "Transactions" the national disgrace. We will not quarrel with our neighbor of the "City of Brotherly Love" about a choice of epithets, but at the same time we must remind him that just as the great Sam. Johnson

was compelled to admit that both Hell and Scotland had their uses, so he must admit that the "Transactions" have their uses too, for which we refer him to his own editorial of Nov. 8th, on "Professional Advertising," and to that of Dec. 13th, on a "Psychological Phenomenon," and exhort him to be charitable.

Skin Grafting—Gonorrheal Orchitis.

Dr. Alfred C. Girard, U. S. A., reports to the Philadelphia Med. Times the complete cure of an indolent ulcer of three inches diameter, within seven days, by the application of three skin grafts, the size of millet seeds, to its surface; a modification of the ulcerative process being perceptible in six hours.

The same surgeon recommends the application of "*elastic bands*," such as are used for stationery, in the place of the adhesive straps ordinarily used in the treatment of gonorrheal orchitis.

Chorea.

Dr. George S. Gerhard reports to the same journal the results of his treatment of thirty cases of chorea. The duration of the disease before treatment varied in different cases from two weeks to fifteen years. In ten cases, the right side alone was choreic; in five cases, the left; in seven, the entire body; in three, the entire body, but chiefly the right side; in two, the entire body, but chiefly the left side; in one, the head, shoulders and face; in one, the head and right arm; in one, both arms, head and neck were involved. Sixteen cases were cured; seven exhibited marked improvement; three were improved, and in four the result was unknown. Of the cures, three were treated with arsenic alone; one with arsenic and zinc; one with arsenic and iron; one with arsenic and purgatives; one with arsenic and chloral; one with arsenic and atropia; one with arsenic, chloral and the cold douche; one with arsenic, iron and bromide of potassium; two with arsenic, sulphate of zinc and the cold douche; one with arsenic, cimicifuga and the cold douche; one with sulphate of zinc; one with zinc and galvanism, and one with gymnastics. There were seven females and five males under ten years of age, and thirteen females and five males under twenty-one years of age. The paper is very interesting, and deserves careful study.